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ABSTRACT

The Dean's Grant Program at Virginia Commonwealth University established a three-year effort to facilitate changes in the training program for elementary and secondary school teachers who will be dealing with disabled children in the regular classroom. The program was designed and conducted as a planning and development effort, not as a personnel preparation activity. Its primary targets were faculty members of the school of education and the preservice programs they conduct. During the first two years, the major faculty and program development strategy was organized around three mainstreaming development teams. Each met as small units and later as a single, larger team. During the last year, minigrants, faculty seminars, and scope and sequence curriculum development activities in each of the departments were major design characteristics. Throughout the project, a series of support activities, consisting of conferences and workshops, a resource center in the school's multimedia unit, and bibliographies from the university library provided participants with periodic experiences supporting their professional development and program revisions. Detailed descriptions are given of the project's rationale, design, accomplishments, documentation and evaluation, and its impact on students and first year teachers. (JD)

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Toward Preparation Programs to Prepare All Teachers to Respond to Children With Special Needs

The

Final Report

of the

Dean's Grant Project General Education/Special Education, 1980-83

(OEG G00/8001033)

School of Education

Virginia Commonwealth University

Richmond, VA

Charles P. Ruch, Director

March 1984

This project was conducted pursuant to Grant OEG G00/8001033 from OSE/DOE. Opinions expressed are those of the author. No official endorsement by the U.S. Department of Education or Virginia Commonwealth University should be inferred.

Acknowledgments

This report documents the collaborative efforts of faculty and students in the School of Education to revise the regular education preparation program for secondary educators. Coupled with the efforts of the preceeding project, faculty from all pre-service programs were involved in this effort. Their contributions, too numerous to list, are documented throughout this report.

The project was served by three able graduate student administrative assistants: Pat Mosingo, Sue Hazelitt, and Angela Ferguson. Cynthia Gray and Vicki Hillegass provided valuable secretarial support. Their assistance in the conduct of this project and in the preparation of this report is gratefully acknowledged.

Charles Ruch

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Chapter One

INTRODUCTION

> The most vivid truth that emerges from any analysis of the views expressed...on the present state of the educational system, the goals and concepts included in P.L. 94-142, and teacher education is that we will not succeed if special education is kept in a conceptual framework apart from regular education at any level of the educational spectrum. Until we get rid of this dualism in our teacher education institutions, our public schools will continue to be a mirror image of the conditions present in teacher education. Therefore, we must prepare all teachers to implement the concepts in P.L. 94-142. We must reform all aspects of teacher education, not just special education departments. (Corrigan, 1978, p. 258)

The 1970's produced circumstances that demanded change in the initial preparation of all educational personnel. The right to a full educational opportunity was expressed as a constitutional guarantee in the Commonwealth of Virginia. Enabling legislation expressly required free public education be made available to all disabled persons, ages birth through 21. However, it was the passage of the federal law, Education for All Handicapped Children Act (Public Law 94-142), in 1975 that provided the greatest impetus for change.

The particular requirements of P.L. 94-142 with an emphasis on due process requirements, educational diagnosis, individually planned programs, and placement in least restrictive environments that provided a particular challenge to the regular educator to provide meaningful educational experiences for all children. Children with special needs were to be included in the regular classroom. The impact on preservice

teacher education was clear. No longer could teachers be prepared without significant experiences, critical professional knowledge, and a positive attitude toward the education of disabled children in regular classrooms.

By 1980, the impact of the inclusion movement was felt in most classrooms in Virginia. During that year, over 83,000 children were identified as eligible for some form of supplemental service under the provisions of P.L. 94-142. Of that number, 65 percent received assistance in the regular classroom. The number of handicapped children served under P.L. 94-142 had increased by more than 16,000 students from the school year 1977-78. (U.S. Department of Education, 1982)

Clearly, one of the tasks of the general educator now includes providing appropriate educational services to disabled children placed in the classroom. Changes in teacher training programs begun in the late 1970's needed support for expansion and institutionalization so that all new teachers would possess those requisite competencies.

This report documents a three year effort to facilitate changes in the training program for elementary and secondary teachers enrolled at Virginia Commonwealth University. This project builds on a two year effort during the period 1978-80 which focused exclusively on the preservice training for elementary teachers regarding implementation of P.L. 94-142. The staff and program development model developed in that project, was extended, through this project, to include secondary pro-

grams. Consistent with the national Deans Grant program, this project was designed and conducted as a planning and development effort, not a personnel preparation activity. Its primary target audience was faculty of the school of education and preservice programs they conduct. The indirect beneficiaries were the current and future preservice trainees and, ultimately, the children and youth they teach.

Chapter Two

GOALS AND OBJECTIVES

This project continued the work begun during the Virginia Commonwealth University Deans Grant Project on mainstreaming (a two-year project, 1978-80). That project concentrated on the preservice training program for elementary teachers. It was designed to allow modifications in preservice training to closely parallel and reinforce inservice training provided under Virginia's implementation of P.L. 94-142, as amended.

This project was designed to both reinforce and institutionalize previous project gains, as well as to focus project attention on the modification of secondary programs.

Goals

The Deans Grant Project on General Education/Special Education proposed three interrelated goals:

1. To design, develop, and implement modifications to the preservice training programs for secondary and vocational/technical education majors designed to develop skills in providing appropriate instruction to exceptional children found in regular classrooms.

2. To design, develop, and conduct professional development activities for school of education faculty members to increase their awareness, skills, and knowledge with respect to educational programming for exceptional youth; and

3. To design, develop, and adapt training materials and activities with emphasis on integration of the university with field-based resources, to assist preservice secondary and vocational/technical educators in developing mainstreaming skills.

The project had a fourth (implicit) goal: to support, reinforce, and institutionalize project gains from the 1978-80 Deans Grant Project, which focused on the elementary education programs. When viewed over the five-year period, the total effort provided opportunities for (a) comprehensive planning, (b) staff and program development activities, (c) modifications to all preservice programs for elementary and secondary teachers, and (d) opportunities for the majority of faculty members to become aware of and proficient in how these new expectations would affect their professional lives.

Annual Objectives

To achieve the project's goals, specific objectives were planned for each year:

Year One

1. To establish three inter-divisional mainstreaming development teams (MDT's) to design, develop, field test, and implement appropriate modules/learning experiences to assist preservice secondary and vocational/technical teachers in achieving mainstreaming competencies.

2. To conduct one major conference/workshop, thus bringing together students, university faculty, and public school/agency personnel to extend the awareness of the mainstreaming issues and concerns.

Year Two

1. To establish three additional inter-divisional mainstreaming development teams to design, develop, field test, and implement appropriate

modules/learning experiences to assist preservice teachers in achieving mainstreaming competencies.

2. To conduct a major conference/workshop for secondary and vocational/technical personnel to extend the awareness of mainstreaming issues.

3. To assist in the coordination of individual faculty modifications to courses and field experiences into systematic, revised, preservice training programs at the secondary and elementary levels.

Year Three

1. To establish additional mainstreaming development teams to design, develop field tests, and implement appropriate modules/learning experiences and to assist preservice teachers in achieving mainstreaming competencies.

2. To conduct a major conference/workshop for secondary and vocational/technical personnel to bring together students, university faculty, and public school/agency personnel to support the awareness of mainstreaming activities.

3. To facilitate the coordination of individual faculty modifications to courses and field experiences into a systematic, revised, preservice training program at both the elementary and secondary levels.

Although there are demonstrable differences between elementary and secondary schools, their student populations, curricula, and staffing,

this project addressed the need to modify the preservice preparation programs so that both elementary and secondary teachers would be able to respond to the realities of the educator of the 1980's.

Regardless of the grade level or setting, each teacher must be able to provide the necessary instructional strategies to educate exceptional children appropriately placed in their classroom. The teacher of the eighties must possess the skills, knowledge, attitudes, and experience necessary to effectively provide instruction for exceptional children. In general, these include an expansion of:

1. Educational diagnostic procedures.
2. Group and individual instructional procedures.
3. Abilities to implement aspects of P.L. 94-142.
4. Understanding of medical aspects of exceptionality.
5. Understanding characteristics of exceptionality by category.

While the knowledge-base supporting each of the above competency categories is growing, unanimity of faculty opinion was absent at the outset, regarding what knowledge, skills, and attitudes should be introduced in what order into the curriculum. Much of the project was devoted to an analysis and resolution of this curricula development issue.

While focusing on staff development and curriculum design, the project sought to lessen the separation between special and general educators. The project encouraged the exchange of resources and initiated renegotiation of appropriate professional roles. At the onset of

the project, few, if any, curricular interactions were occurring between the secondary and special educators. As Martin noted,

> We also need to examine the assumptions that have led us to think of regular education and special education as dichotomous constructs. This kind of thinking has led to the treatment of common problems by separate groups who use different language constructs, publish in different journals, and, in general, cannot communicate. It has also affected the way our personnel are trained. If handicapped children are going to receive the best possible education, we need to find a way to share our knowledge and to work together, rather than to continue to divide our tasks in such a way that regular and special education personnel have difficulty in communicating with each other. (1978, p. iv.)

Through the vehicle of the project, interactions, bridges, and sharing of instructional resources and responsibilities are developed. Such changes were necessary to implement needed program changes and to model appropriate renegotiated roles. It was anticipated that such modeling would reinforce necessary changes underway in public schools as the education of all children in the least restrictive environments becomes a reality.

Chapter Three

RATIONALE

Both the design and conduct of a Deans Grant project present an opportunity to conceptualize strategies for faculty development and institutional change. The unusual complexity of the proposed change itself, the nature of faculty development, and the characteristics of change in schools (elementary, secondary and higher education) argue for studied analysis and planning. The project design and implementation was both facilitated and complicated with the Dean as the project's director.

Fortunately, literature on staff and organizational development in general, as well as their applications to schools of education, is emerging. An attempt to synthesize selected aspects of this literature into a conceptual scheme and operational plan has been a continuing agenda throughout this project, particularly for the director. This aspect of the project started with preproposal activities. Subsequent applications for funding permitted the sharpening of the conceptual base and, thus, strategy. The report of the first project (Ruch & Chester, 1980), provided a first opportunity to articulate the project's strategy and provide an action-research critique. The following rationale expands and updates that effort.

RATIONALE FOR PLANNED CHANGE

The agenda of the Deans Grant project is clear: to change the way in which teachers are prepared, so that a wider range of exceptional children can be educated in regular classrooms. The apparent simplicity

of this task is deceptive. The nature of change is complex. Teacher education faculty, whether university or school-based, are often in need of new skills and knowledge to meet the challenges of their realities. New teachers are trained in often-unclear programs of questionable potency. The training program, itself, set in a university context, requires modification. All changes are interdependent. As such, they require coordination. They take place over time, during which the intensity of commitment and focus can vary. Finally, as priorities shift, mechanisms need be found to include project changes in the regular program's content.

The conceptual framework undergirding this Deans Grant project is based on three lines of inquiry. The first conceptualizes planned change as a non-linear process of adaption, rather than a linear process of adoption. The second examines the process management issues necessary to facilitate adaptive outcomes. The third investigates characteristics of the structural components necessary for project success. Particular attention attention is given to the process of institutionalizing project gains into the regular flow of institutional life.

Adaptive Change Mode

From the literature on planned change generated over the past decade, a number of models have emerged. Nordvall (1982) identified eight different approaches to planned change in higher education. However, two most clearly characterize contrasting strategies.

The Adoption Model proposes a linear link between research and development activities, which originate with an innovation, and its use (adoption) by the practitioner (Havelock, 1971; Rogers and Shoemaker, 1971). Emphasis is upon strategies which assist this process. Several other Deans Grant projects have utilized this strategy (Sharp, 1982).

The contrasting model, Adaption, suggests a modification of the innovation by the practitioner upon use. The change process is conceptualized as a non-linear sequence. A preponderance of evidence (Berman & McLaughlin, 1974; Hipps, 1982; Lindquist, 1978; Morris, 1979; Paul, 1977), reports that during an innovation's initiation, modification usually occurs. In these cases, both the user and the innovation are changed, that is, mutually adapted. Larsen and Agarwala-Rogers (1977) report that innovations that are institutionalized by way of adaption find greater levels of usage than those which are adopted unchanged. This appears particularly true if the innovation is complex and process-oriented.

Implications of these findings appear germane when one considers the nature of a Deans Grant project. Since the Dean must be the actual or nominal project leader, activities take on all the characteristics of "top-down" dissemination (adoption). Project design considerations need to maximize the impact of the key academic officer in facilitating the change without developing faculty resistance to intrusion into curriculum matters, which are viewed as their prerogative. (Sivage, Bryson, & Okun, 1982). A project design that emphasizes adaption, rather than the

adoption of a pre-designed package, appears consistent with these findings and the nature of the mainstreaming innovation. Short (1983) reviewed alternative curriculum development strategies and found this style (adoption) possessed the "fewest deficiencies and qualifies as the one that best fulfills (the) technical, practical criteria for an effective curricular development strategy." (p. 60)

Process Management

The literature on small group process (Yalem, 1970) and adult socialization (Brim & Wheeler, 1966) suggest two necessary and complementary group processes which should enhance the adaptation dynamic. A third, more comprehensive review, suggests that planned change follows a developmental sequence. (Hall & Loucks, 1978; Loucks, 1983). These findings, when synthesized, form a guideline for project process management.

Activities which assist the user in working directly with some respect of the innovation, as opposed to reading about it, talking with others about it, or learning about it in some other vicarious manner, are critically important. Such activities intensify experiences with the innovation. It is argued that without actual hand-on experience with some aspect of the innovation, little adaptation will take place.

Activities which are designed only for "awareness" limit the acceptance by the potential adopter and do not create enough tension (anxiety) to facilitate change. If new behaviors, skills, and attitudes regarding mainstreaming are to be learned, a "powerful environment" must be

created. Task involvement is one way to create such a learning environment.

The complementary process of extension also contributes to the adaptation. Activities which link a person working on the innovation to others engaged in similar activities can perform this function. Materials which describe alternative strategies and uses with the innovation also assist in extensification. These new situations provide support, motivation, and an "audience of evaluation" which interact with the intensive activities to enhance adaptation.

When coupled, these two processes tend to be mutually reinforcing. This contributes to the power of the environment. The intensification processes give the participant actual, hands-on experience with the innovation, including the frustrations, problems, successes, and accomplishments. Extension to others engaged in the same process--both within the institution and outside--create a sense of support and encouragement. These links provide opportunities to broaden perspective and understanding of the innovation. It is argued that one without the other is much less effective.

The adoption of any innovation can be viewed as a developmental process. Hall, et al (1979, 1978a, 1978b), demonstrated that there is a series of stages an individual moves through in the course of the adoption/adaption process. The assumptions of the concerns-based adoption model (CBAM) are that change (a) is a process, and not an event;

(b) is made by individuals first, then institutions; (c) is a highly personal experience; and (d) entails developmental growth, feelings, and skills which are acknowledged as critical processes that must be attended to during the life of any given project. Project activities and expectations should be planned to address the needs of each stage.

While acknowledging the major tenets of the CBAM, this project differed in two important respects. First, the project design sought to maximize the adaptive acceptance of the innovation instead of a "mechanistic" adoption. While the line between the two is not sharp, the project valued the instillation of a response to the mainstreaming concept compatable with local needs and resources. Second, project intervention, while responsive to CBAM stages, focused on innovation-related topics which maximized either extensive or intensive processes with the goal of increasing project potency. This strategy was a contrast to the CBAM literature, which suggests that interventions be focused on resolving the individual concerns characteristic of the stage of development.

Institutionalization

As the project moved toward conclusion, attention focused on the process of institutionalizing project gains. It is interesting that the literature offers little assistance to the project manager regarding this process. The highest stage of concern and levels of use in the CBAM model imply institutionalization. However, most of the research report to date includes examples at the early and middle stages of these processes.

A monograph by Carey and Marsh (1980) reviews the institutionalization process across several teacher corps projects. They suggest several progmatic indices of success. Another teacher corps monograph (Pankratz, Tanner, Leeke & Moore, 1980) discusses some theoretical and practical considerations which project managers might consider if project gains are to become part of the major system. Terrell (1983) argues that institutionalization flows from policy considerations and urges project leaders to access the policy process. The analysis of the literature on institutionalization, as well as a review of the project's literature reviewed below suggest that specific strategies to maintain project gains are limited. All sources argue for a planned strategy to move project activities into the life of the organization. Local situations tend to dictate the strategy and the style.

Structural Components

Three components need to be involved in any teacher education reform effort. These include opportunities for the people to change (faculty development), for the place to be modified (program development), and for new instructional resources to be added (materials development). Redesign efforts called for in this project necessitate the coordinated modification of each of these components.

Changes called for in responding to the mainstreaming concept generate opportunities for faculty development. Occasions are needed for faculty to learn by themselves, or with colleagues, about the implications this emphasis for their instruction. Faculty need opportunities to reassess course content, teaching styles, and instructional processes.

If a new content, emphasis, or strategy (such as mainstreaming) are to be introduced into a curriculum, faculty members need to learn, in depth and breadth, about the innovation if they are to identify and include appropriate aspects (adaptation) into courses, practica, and other instructional activities.

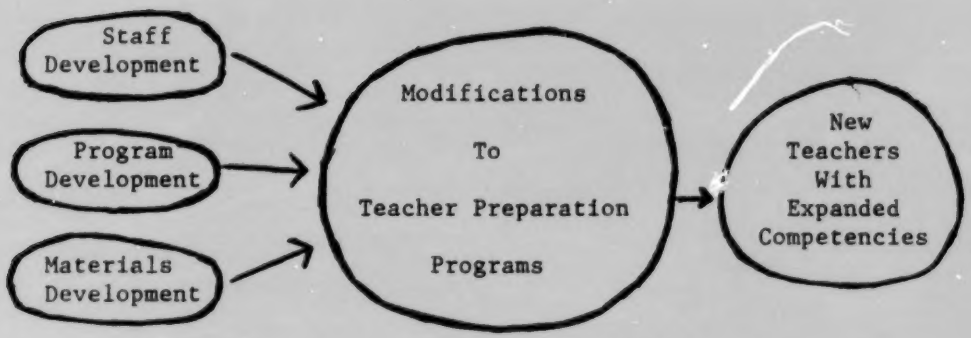
Change implies modification to existing programs. Program development requires faculty to propose change to curriculum and instruction. Such change needs to be tried and evaluated. Appropriate feedback would then follow. The mainstreaming concept challenges course and program requirements, interrelationships among activities within a course, and sequencing of courses within a program. Institutionalization of such changes should transcend individual faculty actions.

Finally, substantial changes to programs require appropriate materials, technology, and clinical settings. Faculty and program development activities create a need for new materials. Resources for materials development, either through acquisition of commercial materials or through the preparation of new materials, need to be provided. In the case of a project which highlights the instruction of exceptional children in regular classrooms, the need is great.

The project sought to coordinate these three components--staff, program, and materials development--in a fashion that permitted interaction and ultimate institutionalization of project gains. These interrelationships are illustrated in Figure 1.

Figure 1

Components of Redesign Strategy



In review, this project provided for the orchestration of activities whereby an innovation (the integration of mainstreaming competencies into all phases of the preservice curriculum) was assisted. This was accomplished through the process of adaptation. The project sought to accomplish this through the development of both faculty and program, reinforced with the production, acquisition, and utilization of appropriate materials. Project processes encouraged the intensive involvement with an aspect of the innovation, coordinated with extensive links to others working on similar aspects. Attention was given to the developmental nature of adoption/adaption process, while keeping a focus on project goals. To the extent possible, the project sought to parallel on-campus the impact that P.L. 94-142 was bringing to the classrooms of area schools. Hudson and Carroll (1983) successfully summarized this impact:

> With the advent of Public Law 94-142, it appeared that pre-service teachers would have to learn to make appropriate meanings of an even more complex system of instruction. To accomplish this, they would have to adapt to more new content for which they had few existing schemes. The idea of having a separate course or separate

> modules with discrete special education objectives seemed to conflict with the very idea of mainstreaming. Moreover, such a procedure would increase the probability that the preservice preservice teachers would (a) organize the information in discrete bits and not as a functioning part of the whole, and (b) at some later time, treat handicapped persons as different. If preservice teachers were to conceptualize handicapped persons as contributing members of the group, it seemed to us that mainstreaming concepts would have to be integrated into each facet of the teacher education program. (p. 3)

Team Design

A team design was utilized in this project. The organizing structure was a series of small mainstreaming development teams (MDT's). Each team was comprised of a faculty member from special education joined with two faculty from general education and one graduate assistant. Each team was responsible for the design, development, and field evaluation of a series of learning activities to be incorporated directly into the present preservice elementary teacher education preparation program. These teams, together with other key personnel, combined to form an overall Big Team project group for curriculum planning, development and coordination.

The team design was maintained throughout the project. Even during the third year, when under both pressures to reduce project resources and to strengthen strategies to build project activities into the regular curriculum, a team approach dominated design considerations. Mini-grants, faculty seminars and workshops,and alternatives to the MDT design were conducted by teams of general and special education faculty and graduate students.

The team approach had several strengths. Teaming provided a viable mode of interaction among faculty from separate divisions and specializations. It is within this structure that two faculty groups (who normally operate separately from one another) came together. Second, teaming provided a model of general education and special education faculty working cooperatively, which should be a useful reinforcer for the preservice students. One of the most critical aspects of the mainstreaming movement is its impact on staff relationships in schools. Collaborative planning and delivery of instruction is now required. Reynolds & Birch (1977) note:

> In the past, regular class teachers had the responsibility only for their own interactions with pupils. That responsibility now extends to the coordination of the activities of a resource teacher and other pupils with (exceptional) pupils in the class. (pp. 236-237)

Third, teaming provided the idea of collaborative and peer involvement in solving real educational problems, i.e., that of introducing "mainstreaming" into the curriculum. The fact that a university team was working on the same educational problem - though on a different level than their public school colleagues - gives credibility and some measure of transfer to trainees who will observe teaming in the university and later participate as team members in the schools.

By design, the team notion provided a vehicle for (a) university faculty re-training; (b) curriculum development for a pre-service program; and (c) modeling what is believed to be a necessary staffing pattern (special education and general education faculty working together cooperatively), that is transferable to the public schools.

There is a growing body of literature supporting teaming as a structure for planned change. Boyer & Crochett (1973) reported the successful utilization of teaming in higher education change projects. Sikes, Schlesinger, and Seashore (1973) describe a series of campus-based teams who were responsible for curriculum development projects. The Western Interstate Consortium of Higher Education (WICHE) project on Student Services also utilized campus-based teams (Moore & Delworth, 1976). Finally, Spillane & Levinson (1977) described a series of projects designed to modify teacher education curriculum using a team structure.

More recently, Lindquist (1978) describes experiences with faculty and administrative teams in curriculum development projects. Three successful FIPSE projects: the PIRIT project on faculty development (Gaff, 1976), the SREB project on faculty evaluation and projection (O'Connell, Jr. 1978), and the General Education Models project (Gaff, 1979) -- all utilize faculty, administrator, and student teams. Hipps (1982) describes the utilization of teams across several institutions involved with Kellogg Foundation projects. Finally, throughout the case studies and reports of Deans Grants Projects described in Teacher Education: Renegotiating Roles for Mainstreaming (Grosenich & Reynolds, 1978), the power of a team strategy is documented.

At the school division level, the work of the University of Oregon Research and Development Center (Arends & Arends, 1977; Charters, Jr., 1973; Fullan, 1982; Runket et al., 1979; and "Renewing" 1979) report successful staff, program, and curriculum development based on the team model. Garner (1982) argues that learning is critical in the design and

operation of residential programs for emotionally disturbed youth. Schubert and Landers (1982) discuss the team concept in making the least restrictive environment requirement workable in secondary schools.

In addition to the conceptual and experiential rationale for the team concept, there were strong situational characteristics that tend to reinforce this choice. During the active life of the project, the School of Education completed a major reorganization, from a departmental format to a divisional/core faculty structure (Ruch & Hall, 1982). Undergirding this transition was the creation of core faculties, sic., small teams, with responsibility for one or more components of a training program. Core faculties, by necessity, needed to build links with other cores. Hence, the mainstreaming development team became a viable model for building these inter-relationships. Furthermore, the presence of reorganization and curriculum development activities in the school permitted these teams to have maximum impact on the redesign of the pre-service training programs.

The use of teams was to facilitate the intensive exploration necessary for effective staff and materials development, while permitting extension to other project personnel that would strengthen program development possibilities. Suggested relationships among the conceptual elements and project design is presented in Figure 2. Intensive processes were facilitated by small teams working on specific courses/modules and developing specific materials. Big Team meetings, conferences, program activities, and bibliographies of available

materials serve o extend the participants' view of mainstreaming. The adaptive approach to the innovation and the inductive style of project management effectively responded to the developmental nature of this change.

Figure 2

Project Rationale, Design and Activities

Processes	Components		
	Faculty Development	Program Development	Materials Development
Intensive	Small Teams	Small Team Projects (Modules/Courses)	Teams Make/ Purchase Materials
Extensive	Large Team Reports to/from Others in School; University Conferences	Large Team Views Impact on Programs	Bibliographies; Library Acquisition Newsletters, Project Materials, NSSP Materials
Developmental	Inductive Style; Teams Design Individual Tasks and Strategies	Teams Tied to Core Faculties; Large Team Tied to Faculty	Teams Select Needed Materials
Institutionalization	Faculty Continue to Include These Activities in Courses	Mainstreaming Competencies Required in Programs	Faculty Members Use Materials

Chapter Four

DESIGN

The project's strategy was implemented through two components. During the first two years the small teams/big team design focused on changes for the secondary programs. Additionally, support activities were conducted to extend project efforts beyond the secondary programs. During the project's last year, team activities focused on strategies designed to institutionalize the project's gains.

Small Team/Big Team Design

Three small teams were created during 1980-81, plus three additional teams during 1981-82. Each team was comprised of a graduate assistant and three faculty members: two from general education and one from special education. The all special education faculty served as a resource to the total project; they represented each of the special education categories at Virginia Commonwealth University: emotionally disturbed, mentally retarded, and learning disabilities. Consequently, faculty could work across teams bringing a non-categorical approach to each small team. A general small team model is illustrated in Figure 3.

The second aspect of this design brought the small teams together monthly in a meeting chaired by the Dean. This group was referred to as the Big Team and enhanced the inter-relationship of the teams. It provided a common exchange of ideas, problems, and successes. It served as a vehicle for the involvement of other administrators and faculty with project activities. The project work flow followed the following cycle:

Project Work Flow

Week 1	Project Staff Meeting (Big Team)	All teams and visitors
Week 2	Small Teams Meetings	Concurrently
Week 3	Small Teams Meetings	Concurrently
Week 4	Small Teams Meetings	Concurrently
Week 5	Project Staff Meeting	(Repeat Cycle)

This work flow also provided for the monitoring of project work. In preparation for each meeting of the project staff, each team prepared a brief updated planning survey. These were shared at the Big Team meeting.

Figure 3

Mainstreaming Development Team Model

Mainstreaming Development Team

Design
Development
Field Test
Implement

Modual/Learning Activities In the Areas of

1. Educational Diagnostic Procedures
2. Group and Individual Instructional Procedures
3. Implementation Aspects of P.L. 94-142
   - i. individual education program (IEP)
   - ii. least restrictive environment
   - iii. alternative environments
   - iv. procedural safeguards
   - v. surrogate parent involvement
   - vi. served and unserved priorities
   - vii. nondiscriminatory testing
4. Medical Aspects of Exceptionality
5. Characteristics of Exceptionality by Category

for inclusion in pre-service training programs for Secondary Education Majors

The work flow provided monitoring of project work. In preparation for individual projects at Big Team meetings, each small team prepared a brief report to share and discuss at the larger meeting. This made way for planning the next series of activities.

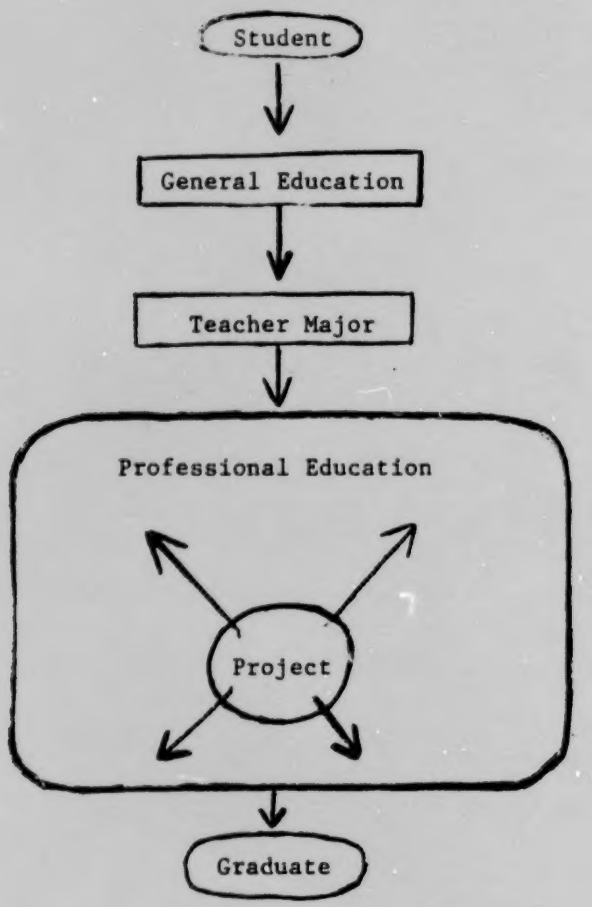
Relationship of Small Teams to the Secondary Programs

Over the life of the project, the curriculum for secondary teachers underwent considerable review and change. At the outset (1980), several separate secondary curricula (one in each different teaching major) were converted into a generic degree program in secondary education. This presented the project with an unusual opportunity to increase the interaction between regular and special education faculty, in addition to an opportunity to influence the curriculum redesign.

In general, the secondary education curriculum is composed of three components: general education, the teaching major, and professional education. It was to this latter component that the project had its greatest impact. The relationship between the project and the general secondary-teacher education curriculum is presented in Figure 4. During the first two years of the project, most of the faculty teaching professional education courses participated on one of the mainstreaming development teams.

Figure 4

Relationship Between Project and Secondary Teacher Education Curriculum



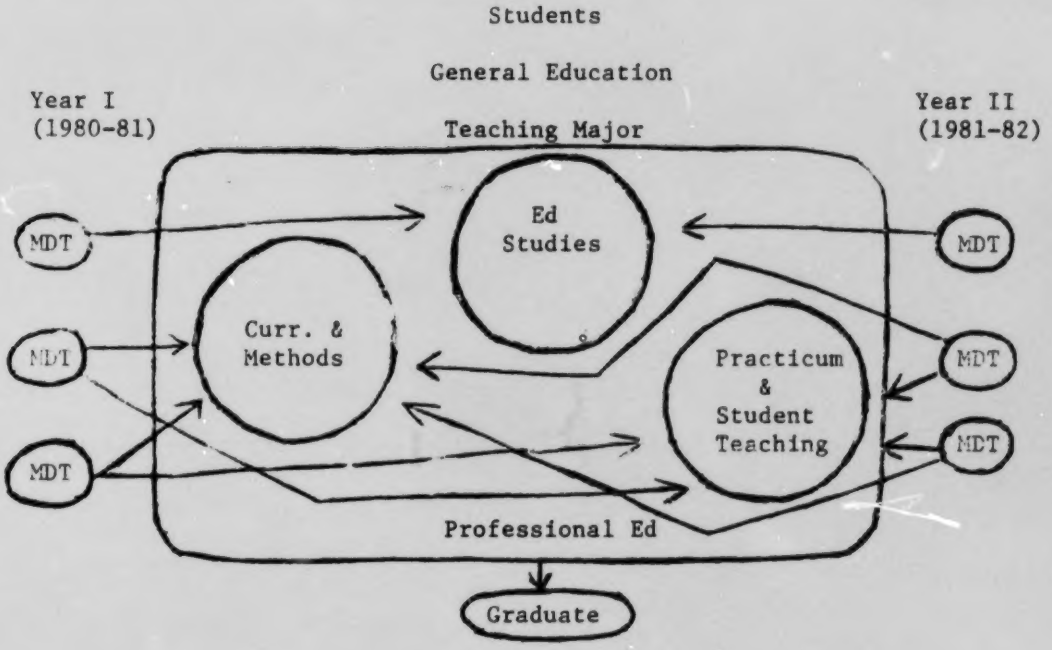
The professional education phase of the secondary education curriculum is described as having three general clusters of courses:

1. Foundations (Humanistic and Behavior)
2. Curriculum and Methods
3. Clinical Experiences, including Practicum and Student Teaching

The relationship among the mainstreaming development teams and the professional education curriculum is illustrated in Figure 5.

Figure 5

Relationship between MDT's and Secondary Teacher Education Curriculum



Minigrant Faculty Seminar Design

A major modification was made to the project design for the third year. Fiscal limitations and the special needs of the final year forced a modification to the design. The altered design sought to maintain many of the key elements of the project. The interaction of general and special education faculty and general education faculty assuming the major leadership for project activities were elements given high priority. Activities designed to strengthen programmatic gains and to assist in the institutionalization process of project accomplishments

were included. The Big Team was revamped to include the project director, a graduate assistant, a general education faculty member, and a special education faculty member. This team managed project activities for the last year, which were focused on three interrelated sets of activities.

The first was a series of minigrants offered to the faculty-at-large. Recognized priorities were projects which could be completed during the year, were related to previous project activities, and which included general and special education faculty working together.

Second, a needs assessment of faculty members for topics was conducted. A resulting series of six faculty seminars were presented during the year. These seminars focused on topics related to the education of special youth in regular classrooms. Each seminar drew on the resources of both general and special education faculty. Several included professionals from across the University and from the community outside.

Third, minigrants were designated to department chairpersons to assist faculty in completing the scope and sequence charts for each curriculum. This activity brought into focus the curriculum for the elementary, secondary, and occupational education. It highlighted what competencies should be developed in which courses. The scope and sequence charts provided a vehicle for the institutionalization of special education curriculum needs in the curricula for all general educators.

Support Activities

The second component of the project was the conduct of a variety of support activities. Each activity was designed to extend and link project participants with others involved in similar activities or projects within the school and/or the community. Three kinds of support activities were planned.

A number of short term conferences or workshops designed to extend to faculty members, students, and the practicing professionals an awareness of activities in the mainstreaming arena were conducted. Conversely, project faculty were encouraged to attend and participate in regional and national Deans Grant meetings or similar sessions at professional conferences.

The mainstreaming resource center, initiated with the first Deans Grant project and located in the school's Teachers Resource Workshop, was expanded. The Teachers Resource Workshop operates to assist pre- and in-service teachers in the design and construction of classroom curriculum materials. The establishment of the mainstreaming resource center assisted faculty members and students in designing and constructing curriculum materials for special children in regular classrooms. It served as a resource repository for Deans Grant materials and was a focal resource, making materials available to the entire faculty.

Periodically, bibliographies of materials housed in the University's James Branch Cabell Library were developed and disseminated to augment resources available within the School of Education.

Summary

In summary, the major design characteristics of the Deans Grant project are illustrated in Figure 6. During Years One and Two, the major faculty and program development strategy was organized around three mainstreaming development teams. Each met as small units and, then, as a single, larger team. During the third (last) year, minigrants, faculty seminars, and scope and sequence curriculum development activities in each of the departments were major design characteristics. Throughout the conduct of the project, a series of support activities, consisting of conferences and workshops, a resource center in the school's multimedia unit, and periodic bibliographies from the University's library provided participants and other faculty with periodic experiences supporting their professional development and program revisions.

Figure 6

Project Design Characteristics

	YEAR I	YEAR II	YEAR III
Faculty and Program Development Component	3 MDT's (small teams/big team design)	3 MDT's	- One MDT - Minigrant $$ - Faculty Seminar - Program Devel- - opment (scope/ sequence)
Support Component	Teachers Resource Workshop, Resource Center Conferences and Workshops University Library Resources, Cabell Library		

Chapter Five

PROJECT ACCOMPLISHMENTS

A description and examples of project accomplishments are presented in this chapter. They are organized around the three project goals: faculty development; materials acquisition and development; and program development. Obviously, this organizational plan is somewhat artificial, although it follows the general project design. Attempts are made to articulate the relationships among the various project accomplishments to give the reader a flavor of successes and limitations of the Deans Grant project.

Faculty Development

The architects of the national Deans Grant program clearly articulated that projects should be designed to provide regular teacher education faculty with opportunities to "retool" themselves regarding the implications of P.L. 94-142. It was felt that, through the process of faculty development, the curriculum of teacher education could be examined, and that modifications and/or reconceptualization of teacher education could take place. An intermediate goal for any Deans Grant project is that new teachers could be trained with skills and competencies so they might provide appropriate instruction of exceptional children who might be placed in their future classrooms. Within this general expectation, each individual project was open to design change strategies which would most benefit the individual situation.

This Deans Grant project differed from others in that small teams were utilized. Each mainstreaming development team designed their own faculty development activities, as well as meaningful products; each initiated modifications to courses in their realm of responsibility. Within this structure and given the demands of P.L. 94-142, each team was free to develop its own operating methodology. However, ground rules were agreed upon at the outset:

1. Existing courses would be modified, rather than new courses created.
2. The development of appropriate curriculum revisions would take place within the small team setting.
3. Individual faculty would actually try out revisions with students and receive feedback before formally institutionalizing these changes.

It was felt that, with judicious selection of team members, over time, all components of the curriculum would be addressed, sufficient faculty would become acquainted with the issues precipitated by P.L. 94-142, and a "critical mass" of knowledgeable faculty, would be in place to support program changes.

During the first two years, faculty received one-eighth release time from teaching responsibilities (one course) each year. Graduate students worked with the teams 20 hours each week. Each team controlled a materials budget and had access to support services. The names, academic backgrounds, and team compositions are presented in Appendix I.

Project Meetings and Workshops (Big Team)

The project design called for a Big Team meeting (project director and all team members) once a month. The chronology of all major project activities constitutes Appendix II. During Year One, 10 meetings and 2 workshops were conducted; during Year Two, 5 meetings and 1 workshop; Year Three, 8 meetings.

Several factors contributed to the lower attendance during Year Two. Three teams were involved in projects which had not been completed during Year One. Consequently, the need for Big Team meetings was considerably less. However, the teams were focused and working. A major factor during the year was that the School of Education was undergoing an NCATE self-study, a competitor for time and creative energies.

Several stylistic comparisons between the way elementary versus secondary education faculty approached team participation were observed. First, secondary faculty appeared considerably more cautious in approaching the implications of P.L. 94-142, for themselves, their courses, and their students, than their elementary counterparts. In general, the elementary education faculty, once made aware of P.L. 94-142, were ready learners and willing to modify courses and content to meet the needs of these new children. Secondary education faculty, much more attuned to teaching a discipline, appeared to hold the demands of the law at "arm's length" early in the project. Concerns for the appropriateness of the regular classroom for disabled young people, for how instructional modifications can be made while maintaining "academic

standards," and for interventions that would have a minimum impact on the teacher and the instructional program were expressed early in the project.

Second, elementary education faculty appeared to be more inductive in their problem solving strategies. They wanted to learn about exceptional children and to make suggestions for modifying the classroom. Secondary education faculty appeared more deductive in their own learning strategies. They preferred to study the problem, the individuals, and then consider making modifications. Characteristic was the number of studies, surveys and analyses their MDT's conducted when compared to their elementary education colleagues.

Finally, the early phase of the project moved much more slowly than the earlier project. The energy level and willingness to change appeared lower for the secondary education teams, then for the elementary counterparts.

As with the earlier Deans Grant project, a transitional workshop between Year One and Year Two was held. Its purpose was to bring new members into the project while, at the same time, reviewing the accomplishments and activities of the first year. Copies of project materials, the first year's report, the project design, and other printed works were completed by the project director into a handbook. These materials served as a focal point. In addition, personnel from other special education projects and all administrators were invited to share information. A copy of the workshop agenda is Appendix III.

Mainstreaming Development Teams (Small Teams)

The critical setting for faculty development in this project was the small team. Each team provided close working relations among faculty who normally did not work together. The task of working on a common problem (identified by the small team) served to direct their activities. All issues which usually emerge when discrepant groups come together to work on a task were present at some time. Issues of professional values and strategies, issues of friendship and followership, issues of learning style and manner, issues of process vs. product -- all were present. Yet efforts at cooperation were mostly successful.

Each team was bound only by the content and focus of the general education faculty assignments. During both years, each team was asked to develop a goal statement for the year, accompanied by strategies for reaching those goals and the product or processes which might result. They were free to explore, in their own style and mode, the method of attach on the identified problem or goal.

The graduate student assistants initially were charged to keep the minutes of their small team meetings. These were submitted to the Administrative Assistant for the project (another graduate student). The rationale was to provide some indication of frequency of meetings and topics addressed. As with the earlier Deans Grant project, this assignment was only modestly successful. A variety of factors suggested that small team meeting notes became, in fact, monthly progress reports. They often coincided with the materials prepared for the Big Team meetings. However, there was ample evidence that the small teams met periodically, both formally and informally.

The minutes collected, along with antidotal comments, suggested that teams engaged in the following activities which indicated their development and understanding of the implications of P.L. 94-142 for the training of secondary teachers:

Read text books and articles.
Developed classroom materials and had them critiqued by colleagues.
Visited local school divisions; talked with teachers.
Tried out instructional materials with students; received feedback.
Reviewed films, filmstrips, and video tapes.
Ordered materials; critiqued them; kept some; returned others.
Interviewed (and videotaped) exceptional children and their parents.
Conducted literature searches on selected topics.
Conducted surveys of local teachers regarding aspects of mainstreaming.
Made special efforts to attend sessions on related topics at professional meetings.

They argued, exchanged views, planned together, and, in some cases, worked alone.

Evidence form the project indicates that the individual faculty members explored in depth many of the issues surrounding the implications of P.L. 94-142 and its application to their particular specialization.

Faculty Seminar/Minigrant: Third Year

During the third year, several modifications were made to the project design as a result of a change in level of funding and the particular needs of the fifth (and final) year. The major design changes were the shift from mainstreaming development teams to minigrants and the provision of a series of faculty seminars. Both activities were highly successful.

Five minigrants were funded by the project following an announcement to the general faculty. Characteristic of each was a team approach (general education/special education), the development of a product by the close of the grant, and the employment of student assistants. A summary of these five mini-projects constitutes Figure 7.

Figure 7

Minigrant Projects

1. Lit Picks: Literary Selections for Mainstreamed Students in Content Area Subjects

   J. Richardson, Coordinator
   E. Blankenship, Special Education
   M. Brittain, Elementary Literature Specialist
   J. Lokerson, Special Education
   A. McLeod, Adolescent Literature Specialist

2. Competency Identification and Assessment of Mainstreaming Performance of Virginia Vocational Teachers

   B. Jacobs, Vocational/Technical Education

3. Teachers' Concerns About Mainstreaming - II

   D. Busby, Teacher Education
   A. Hill, Special Education
   D. Reed, Teacher Education

4. Practitioners' Guide to Adaptive Physical Education

   M. Runac, Health and Physical Education/Adaptive Education
   B. Crites, Health and Physical Education

5. Nurturing Total Development Via Environmental Planning

   C. Beers, Special Education
   D. Busby, Elementary Education
   A. Pieper, Elementary Education

A second activity designed to extend and reinforce project gains was a series of faculty seminars. The project team conducted a brief needs assessment of faculty members for topics for a series of faculty seminars. Faculty indicated both topics of interest (needs) and topics they would be willing to present to colleagues (presenters). The project team used these materials and developed a year-long seminar series. The seminars, topics, and presenters are described in Figure 8.

Figure 8

Faculty Seminars 1982-1983

Date	Title	Presenters	Attendance
Sept. 24, 1982	The Special Education Resource Teacher, Panel Discussion	Ms. Quentina Kinney L.D. Teacher-Resource Mary Mumford School Richmond, VA Ms. Connie Showalter E.D. Teacher-Resource John Marshall High School Richmond, VA Ms. Jackie Wilson E.D. Self Continued and Resource Robins Middle School Chesterfield County Ms. Carol Pinover L.D. Resource Midlothian High School Chesterfield County Ms. Sue Moon L.D. Resource Maybury Elementary School Henrico County	72

Date	Title	Presenters	Attendance
		Ms. Pat West E.D. Resource Henrico High School Henrico County	
Nov. 19, 1982	Characteristics of the Mainstreamed Handicapped Student, Faculty Seminar	G. Giacobbe, Sp. Ed. A. Hill, Sp. Ed. J. Lokerson, Sp. Ed.	12
Dec. 2, 1982	Teaching Mainstreamed Middle and Secondary Students with Serious Reading Handicaps, Faculty Seminar	E. Blankenship, Sp. Ed. M. Brittain, E. Ed. J. Hodges, E. Ed. J. Wood, Sp. Ed.	15
Jan. 27, 1983	The Assessment of Handicapped Pupils and the Development of the I.E.P.: Theory and Practice, Faculty Seminar	N. Fallen, Sp. Ed. George McClary Director, Sp. Ed. Richmond City Schools Denna Joy Social Worker Richmond City Schools Joanne Marchant Principal Virginia Randolph Special Education Center Henrico County Schools	12
Feb. 24, 1983	Mathematics and the Handicapped, Faculty Seminar	E. Gross, Sp. Ed. M. Lohr, Sec. Ed. J. Van de Walle, E. Ed.	9
March 29, 1983	Interdisciplinary Teamwork: Myth or Reality, Faculty Seminar	H. Garner, Sp. Ed. A. Stolberg, Psychology C. Wompierski, Social Work	14

Materials Development

The project sought to reinforce that critical element of every teacher education program; the availability of appropriate instructional

materials. Evidence suggests that instructional materials used most often are those which are designed or selected by the faculty member. To facilitate materials development, the School of Education's Teachers Resource Workshop and the Word Processing Center were made available to each team, as well as the resources of the University's James Branch Cabell Library.

As a result of small team activities, 9 training packages and reports were developed over the first two years (Figure 9). During the third year, 5 sets of materials were developed through the minigrant program. These products were a result of individual teams working extensively on one aspect of their mainstreaming agenda and applying it to their specific area of interest.

Figure 9

Instructional Materials Developed by MDT's

Foundations Team

- Mainstreaming: An Overview
- Non-Discriminatory Assessment of Exceptional Children: An Annotative Bibliography of 1975-1980 Literature
- Slide-Tape Unit on Non-Discriminatory Assessment
- SRA and Related IEP Objectives

Secondary Education Team

- Survey of Teacher Attitudes and Experiences with Exceptional Youth
- Video Tape Project: The Experience of Being Handicapped

Voc/Tec Team

- Major Legislation Effecting the Vocational Education's Commitment to the Special Education Student
- Sources of Occupationally-Related Materials Designed to Meet the Vocational Needs of Special Education Students
- Mainstreaming Needs Assessment of Virginia Regular Marketing and Distributive Education Coordinators

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Two additional strategies were incorporated to provide supplementary instructional resources for the faculty. First, each small team was given a materials budget of approximately $200 a year. The team was free to use this budget in support of its own development activities (that is, provide photocopies of articles and expensive materials, etc.) and also to order commercially available materials appropriate to their particular aspect of the mainstreaming concept. These materials later were housed in the Teachers Resource Workshop's mainstreaming resource center for use by all faculty and students. Other materials, obtained through projects such as the National Support System Project, also were indexed into the mainstreaming resource center. Over the 5 year period of the two projects, the collection grew to approximately 500 holdings. Each semester an updated bibliography of resources was prepared.

The library staff of the University's Cabell Library was asked to develop periodic bibliographies of holdings related to mainstreaming as a second strategy. They also increased their acquisition in this area. Their bibliographic efforts were organized around several aspects of mainstreaming concepts and is on-going. All bibliographies were made available to all teacher education faculty.

Program Development

The third goal of the Deans Grant project was to influence major modifications being developed concurrently in the training program for secondary teachers and to assist in the institutionalization of similar modifications made in th elementary education program. Modifications included the introduction of new knowledge, skills, and practical experiences so that a program graduate would possess those professional competencies necessary to function effectively with exceptional children.

Curricular Scope and Sequence

During the earlier project and through the first two years of this project, faculty development and materials development lead to modification of courses. At the end of Year 1, the project's evaluation consultant, Dr. Harold Mitzel, recommended that attention be given to building their interrelationships among the changed courses. Dr. Metzel further recommended that we review the strategy of the Duquesne Deans Grant Project (Hunter & Usnick, 1980). These materials were distributed and discussed throughout Year II. Midway through the second year, activities were planned to highlight and link those courses with changed expectations. During Year Three, the appropriate department chairmen were provided with a minigrant to support the clarification of scope and sequence of the teacher education curriculum. By the project's conclusion, a scope and sequence chart was established for each curricula in elementary education, secondary education, and vocational/technical education. These constitute Figures 10, 11, and 12.

In each case, the sequence of professional education as articulated in those aspects of the mainstreaming component were identified across the program. Attention was also given to the placement of practicum and student teachers, so that students are placed in clinical settings where the education of exceptional children in least restrictive environments is the accepted practice.

Major Activities (Support Component)

To support the intensive staff and program development activities sponsored by the project, a small number of activities were sponsored to extend project participation and activities beyond campus boundaries. These took two forms: on-campus special activities and support for individuals with other aspects of the national deans grant program.

SCOPE AND SEQUENCE OF CURRICULUM FOR EARLY AND MIDDLE EDUCATION

EDU 300 Foundations of Education	EDU 301 Human Development and Learning	EDU 321 Exploring Teaching	EDU 322/325 Planning for Teaching	EDU 485/ 486 Student Teaching	EDU 490 Student Tch. Sem.
or Emphases: entation: Knowe Base) ory of American . ging Issues sophical and ial Trends	Major Emphasis: (Expectation: Knowledge base) *Developmental Stages and Perspectives through adolescence. Minor Emphasis: Learning Theory *prefer a text approach to Human Growth & Development	Major Emphasis: (Expectation: Knowledge base and awareness through exploration levels.) Educational Psychology - observation guides and logs relate class instruction to field experience. Minor Emphasis: (Expectation: Awareness level.) Role of Teacher, School as a Culture	Major Emphases: (Expectation: Application level.) Scope and Sequence of the Curriculum Organization and Planning (goal setting, lesson planning, unit development, use of resources). Integration of the Disciplines of the Curriculum Classroom Management Minor Emphases: (Expectation: Application level.) Parent Involvement Measurement Terminology and Concepts including test simulation and construction of teacher-made tests.	Classroom Mgmt. Interaction Content/Knowledge Planning Evaluation Integration	Rights of teachers Rights of students Feedback to refine teaching strategie and instructional planning. Develop communication skills with student teachers and parents. Refine management techniques.
INTRODUCTION TO MAINSTREAMING AND MULTICULTURAL THEMES (Awareness Level) view of PL 94-142 ts implications.	Types of handicapping conditions.	Mainstreaming: Understanding of IEP; simulation of atypical learning. Multicultural: identification of cultural environment of the school.	Multicultural and Mainstreaming: refining knowledge base manipulating environment to facilitate learning using appropriate materials modifying instruction. (Application level)		Mainstreaming attitude knowledge te
ission to Tchr. Ed. 2.2 r GPA: 2.7 s. Gen. Ed. factory scores on ing & Math tests. Grammar and ng Competency s.		A-V Modules: completion required to pass course Speech Evaluation recorded in cumulative file and any referrals made.	Handwriting competency established through modules or programmed materials (class applications) Application in content/ process classes is expected.		Career Development NTE

CONTENT AND PROCESS

General Expectations for all methods classes:

- Knowledge, skills, and attitudes.
- Instructional strategies and techniques.
- Scope and sequence of instruction including nature and purposes, issues and trends.
- Lesson planning and unit development as appropriate and consistent with division guidelines.
- Materials and Resources
- Evaluation: formal and informal

Mainstreaming and Multicultural themes (See EDU 322/325

NOTE: The teaching of spelling and the writing process are to be included in LAS courses.

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Figure 11

SCOPE AND SEQUENCE OF CURRICULUM FOR SECONDARY EDUCATION

FOUNDATIONS		CURRICULUM	METHODS		CLINICAL COMPONENT	
EDU 300 Foundations of Ed.	EDU 301 Human Dev. & Learning	EDU 310 Practicum	EDU 44- Discrete Methods	EDU 437 Curriculum	EDU 485/486 Student Teaching	EDU 490 Seminar
Major Emphases: (Expectations: Knowledge Base) History of American Ed. Emerging Issues Philosophical & Social Trends	Major Emphases: (Expectations: Knowledge Base) Learning Theory Minor Emphases: Developmental stages and perspective, with more stress on adolescent - adult stages.	Major Emphases: (Expectations: Extended Exploration in Schools) Expand perspectives on Educa. Sociological concerns (applications from 300) Philosophical Concerns(application of 300) Developmental influences on teaching (application of 301) Obj. Students will reflect on philosophical & social issues, theories of lrng. as manifested in classroom	Major Emphases: (Expectations: Application Level) Formulating Inst. obj., strategies, & techniques consistent with philosophy of learning Organizing content of instruction Evaluation Micro-teaching Minor Emphases: Trends and practices such as defending philosophical view of content; discussing controversial issues i.e., censorship.	Major Emphases: (Expectations: Application Level) Focus=Refining scope & sequence of curriculum. Impact of developmental stages on Instruction Integration of the discipline in curriculum. Classroom Mgmt. Minor Emphases: Measurement terminology and concepts (notion of teacher-made tests) Career Ed Rapid review of philosophy.	Applied Level Classroom management and interaction Content/Knowledge Planning Evaluation Integration	Feedback to refine teaching strategies and instructional planning. Refine management techniques Rights of teachers, students. Evaluation obj. testing and teacher-made tests. Developing comm. procedures. Content area reading skills
Introduction to and Multicultural Overview PL 94-142 (lecture, discussion, required readings).	Mainstreaming Oral Themes Types of handicapping conditions.	Multicultural - identifying multicultural environments, apply from 300/301 Mainstreaming (observing support personnel).	Multicultural and Mainstreaming Concerns included when appropriate (identifying and facilitating)	Mainstreaming: Identifying mainstreamed situations in practical setting facilitating learning with appropriate tools. IEPS, LD	Mainstreaming and Multicultural: Observing school personnel in support services positions (i.e., Speech Therapist, LD, Nurse)	
Admission to Teacher Ed.	Work on Writing & Comm. Skills		AV Modules: Students will show AV competencies as part of planned lessons.			
Notes: Many secondary students take 300 & 437 concurrently.	Notes: Possible to "test out" of course textbook approach. Small group problem-solving sessions can have secondary emphases.	Notes: Logs, observations. Students will note teaching style, formulate questions, practice basic teaching skills.	Notes: There will be differences in each content area: 440=Science 441=English 442=Social Studies 445=Math	Notes: Teaching units and instructional planning.		Career Development NTE

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Figure 12

Suggested Integration of Mainstreaming Competencies Into Occupational Education Degree Curricula

Competency	OED 546 Comp. Based Tchg. Mthds. in Occ. Ed.	OED 619 Org. & Admin. of Occupational Educ.	OED 663 Mgmt. of Curr. Dev. in Occup. Educ.	OED 665 Supv. in Occup. Education	OED 402 Curric. Planning in Occup. Educ.	OED 406 Mthds. of Tchng. Occup. Education	OED 401 Occup. Program Planning & Mngmt.	OED 302 Coord. Function in Occup. Educ.	EDU 310 Practicum	EDU 485/ 486 Student Teaching
1. Identify learning problems associated with student handicaps.						X			X	X
2. Informally assess vocational aptitude of handicapped students.						X		X		
3. Identify component elements of occupational tasks (task analysis).	X				X					
4. Write individualized performance objectives for each handicapped students.	X				X	X			X	X
5. Participate in development of the handicapped students' Individualized Education Programs (IEP).				X						X
6. Maintain classroom, lab, or shop areas which are accessible for handicapped students.		X	X				X	X		
7. Compile a variety of instructional materials appropriate for handicapped learners.	X	X			X	X		X	X	
8. Utilize equipment which has been specially adapted to meet the needs of handicapped students (i.e. braille, rulers, lowered tables and chairs, etc.)	X		X			X	X		X	
9. Modify equipment for more effective learning by handicapped students (i.e., color code keys/switches for visually impaired).	X		X					X	X	X

Competency	OED 546 Comp. Based Tchg. Mthds. in Occ. Ed.	OED 619 Org. & Admin. of Occupational Educ.	OED 663 Mgmt. of Curr. Dev. in Occup. Educ.	OED 665 Supv. in Occup. Education	OED 402 Curric. Planning in Occup. Educ.	OED 406 Mthds. of Tchng. Occup. Education	OED 401 Occup. Program Planning & Mngmt.	OED 302 Coord. Function in Occup. Educ.	EDU 310 Practicum	EDU 485/ 486 Student Teaching
10. Promote peer acceptance of handicapped students.						X		X		
11. Work with faculty and staff to coordinate the instruction of handicapped students (i.e., special education teacher, school psychologist).	X			X						X
12. Identify primary learning styles of handicapped students.						X			X	X
13. Utilize teaching methods specifically selected to address the various learning styles of handicapped students.	X					X		X		X
14. Utilize a variety of behavior modification techniques with handicapped students.						X		X		X
15. Employ peer tutoring, teacher aides, buddy system, and/or volunteers to assist handicapped students.						X		X		X
16. Assist handicapped students in developing desirable work habits and personality traits.						X		X		X
17. Utilize a variety of procedures for evaluation and grading handicapped students.	X			X		X		X		X
18. Counsel handicapped students concerning personal and educational development.								X	X	X

Three special activities were planned and conducted to bring area practitioners and campus faculty members to consider various aspects of the impact of P.L. 94-142. These are reported in Figure 13.

Figure 13

Major Activities

Date	Activity	Participants
April 1981	Mainstreaming Film Festival	163
March 1982	The Experience of Mainstreaming - David Thomas -	52
April 1983	Orienteering and Mainstreaming - James Maitland -	21

Nine faculty members participated in 12 conferences. Sixteen presentations were made by project faculty members. These are reported in Appendix IV.

In summary, the project conducted activities consistant with its design and rationale. These focused on faculty, program and materials development.

Chapter Six

DOCUMENTATION AND EVALUATION

Documentation and evaluation activities increased over the course of the project and are reported in this and the following chapter. Essentially, a modest in-house evaluation was conducted, supplemented with an outside consultant and longitudinal data collection from students. This latter activity is the topic of the next chapter. This a model was consistent with the nature of the project and the level of funding available for this function. These activities permitted internal project modifications without attracting outside attention. Ostensibly our efforts had two functions. As Burry (1982) notes:

> One role of evaluation is formative: it serves to help and advise program planners and developers to describe and monitor program activities, assess the progress achieved, pick up potential problems, and find out what areas need improvement. Another major role of the evaluation is summative: it is designed to provide a summary statement about the general effectiveness of the program: to describe it, judge achievement over its intended goals, pick up unanticipated outcomes, and possibly compare the program with similar ones. (p. 1)

The discrepancy model (Brinkerhoff, Brethower, Hluchji, & Nowakowski, 1983; Provus, 1971) served as a general format. The developmental nature of the project prevented the establishment of specific standards against which discrepancies could be assessed. In addition, ideas from the documentation efforts of other developmental projects (Ford & Williams, 1978; Gray, 1977; Mertens & Yarger, 1979; Williams, 1978) were helpful in developing the evaluation/documentation strategy.

Constant attempts were made to improve the quality of the data collected. The services of the Evaluation Training Consortium (ETC) were utilized. Two Deans Grant members attended Type I evaluation workshops. Project designed instruments were reviewed by the ETC staff. Data were shared with project participants for periodic critique. The efforts emphasized the formative nature of the process.

Design

Evaluation questions paralleled the project goals. Four generic evaluation concerns were identified. The first three parallel the major goals of this planning and development project, e.g., program development, faculty development, and materials development. The fourth concern speaks to the impact of these changes, once institutionalized, on the recipient of the secondary teacher preparation program, the pre-service student.

Evaluation concerns were:

1. Changes in the curriculum pertaining mainly to expansion of concepts on exceptional children by the faculty member and students, and the process for integrating these concepts into the pre-service teacher education curriculum.

2. Re-negotiated relationships of the faculty includes procedures and individual responsibilities in the development and presentation of materials.

3. Materials development concerns with the selection of commercial materials and design of new materials organized in module to demonstrate individualized instruction.

4. Student competencies and experience to effectively provide instruction to exceptional youth in regular classrooms.

Data were collected in response to each question. Wherever possible, multiple sources of data were utilized. The relationship among project goals, evaluation questions, and data collection are summarized in Figure 14.

Figure 14

Evaluation/Documentation Plan

	Purpose	Data Collection		
Project Goal's (Evaluation Questions)	Formative or Summative	Instrument	Population	Collection Schedule
I. Faculty Development	F	Schein Group Effectiveness Scale DGP	MDT Members	Spring 1981 Spring 1982
	S	Faculty Reaction Form	Faculty	Spring 1983
	S	Participation Records	Faculty	Spring 1981, 1982, 1983
II. Materials Development	S	Project List of Main-streaming copies	Heavy Materials	Spring 1983
III. Program Development	F	Consultant Report	Program Partici-pants	Spring 1981
	S	Revised Curriculum Scope/Sequence	Teacher Prep Programs	Spring 1983

Findings

Faculty Development

A number of attempts were made to assess both the process and content of the faculty development efforts. Evidences of faculty participation, Big Team/small team effectiveness, and an overall faculty reaction to the project were gathered and analyzed.

Faculty Participation. The participation of faculty on mainstreaming development teams is presented in Table 1. Participation, on the part of faculty members, was an elected activity. Over the 5 years, 70% of the general education faculty spent one or more years working on the Deans Grant team. This means that there is now a significant "critical mass" in each program area with sufficient experience with the mainstreaming agenda to assist in and support the curricular changes beyond the life of the project.

Table 1

Faculty Participation on MDT's[1]

Program	Total Faculty	Years I	II	III	IV	V	Total Partic.	%
Ed. Studies	8	1	2	2	1(1)		6	89
Teacher Ed.	19	5	4	2	1(1)	1	13	68
Occupational Ed.	5			2	1(1)		3	60
Tot. Gen. Ed. Faculty	32						22	69
Special Ed.	9	3	1(2)	2(1)	1(2)	1	7	78

( ) Continued a second year

[1]Includes both Dean's Grants Projects

Team Effectiveness. A series of formative evaluation studies of the Deans Grant project's major processes (Big Team/small team design) were conducted in the first project. The data suggest that the team model was functioning effectively (Ruch & Chester, 1980). Schien's Group Effectiveness Scale was used to assist in functioning on a 10-point Likert scale across 8 variables: Goals, Participation, Feelings, Diagnosis, Leadership, Decisions, Trust, Creativity, and Growth. Although the psychometric properties for this scale are unknown, it is a scale frequently reported in the group and organizational development literature (Group Effectiveness Scale, 1979; Schien, 1969). A copy of this scale constitutes Appendix V.

The Group Effectiveness Scale was administered to all Deans Grant project participants at the conclusion of each year. Each participant evaluated the effectiveness of both their small team (MDT) and the project team across the 8 variables. These data are presented in Tables 2 and 3. As with the data from the previous project, also included in these tables, these data suggest that, overall, the Big Team/small team model functioned reasonably effectively.

Table 2

Mean Level of Effectiveness for MDT's

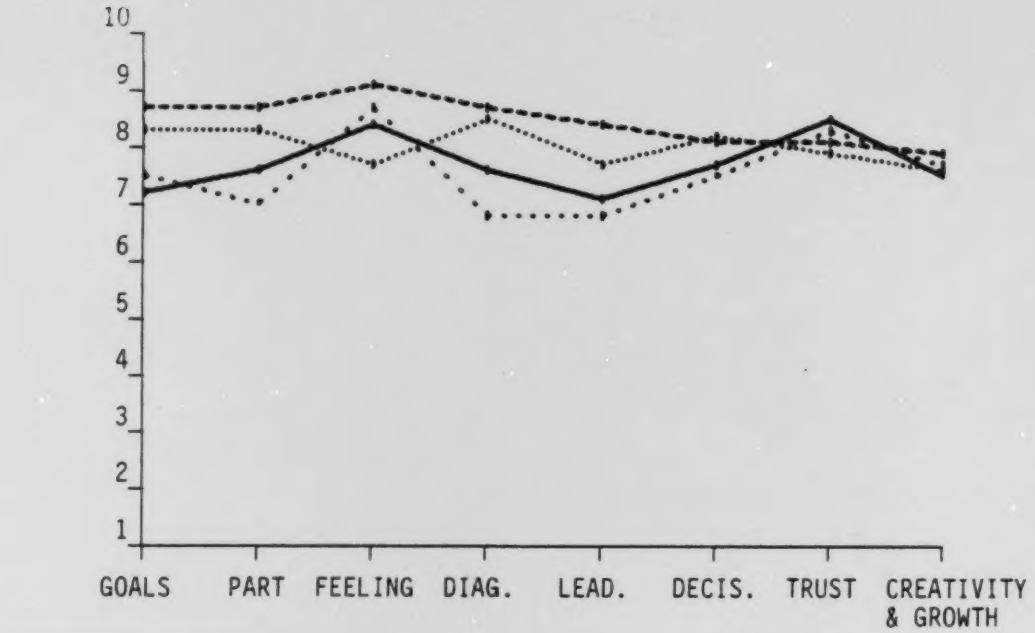
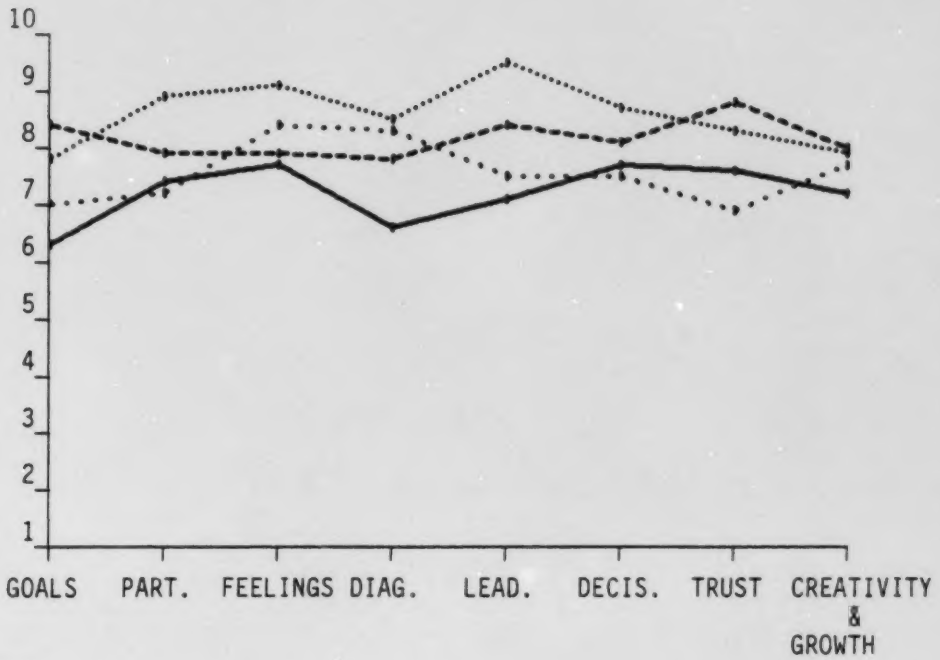


Table 3

Mean Level of Effectiveness for Project Team



1978-1979 = —
1979-1980 = ..
1980-1981 = --
1981-1982 = ...

Faculty Summative Reaction. A questionaire study of the School of Education faculty was conducted during the last month of the project (May 1983). This study was designed to assess faculty reaction to mainstreaming issues and to the impact of the Deans Grant project. The instrument, Faculty Reaction Form, was developed from the needs assessment materials developed by the Ohio Deans Task Force on Personnel Preparation for P.L. 94-142 (1979). No psychometric properties are known. A copy constitutes Appendix VI.

A cover letter was distributed to the faculty with the Faculty Reaction Form indicating requests to assess the project. Returns were anonymous. The faculty were asked to identify whether they had participated in the Deans Grant project and whether they were "general educators" or "special educators."

The questionnaire was distributed during the last two weeks of the semesters -- not an ideal time for any faculty! -- but at the closing date for the grant contract. Twenty-one useable returns were obtained from a population of 48 for a 43% return rate. Three groups were identified for analysis. Total response (N = 21). Deans Grant participants (N = 11) vs. non-project participants (N = 9). General educators (N = 15) vs. special educators (N = 3). The data was analyzed using the SAS cross tab program.

The Faculty Reaction form is divided into two sections. The first section assessed faculty changes in instructional content or methodology. These data are presented in Table 4.

Table 4

Faculty Reactions to D.G.P.

(N = 21*)

	No Change	Minor	Moderate	Major
A. Have you made modifications to current course offerings regarding knowledge/skills required for prospective teachers under P.L. 42-142?	3	2	12	4
B. To what degree have your modifications focused on the following topical areas:				
Understanding the nature of and limitations of each handicapping condition.		8	5	4
Understanding diagnostic procedures and tests for identifying these children.		7	2	3
Behavior management techniques.		5	5	3
Helping normal children to understand and accept children with handicaps.		6	5	4
Selection of curriculum content, methods, and materials.		2	8	5
Communication with special education and support personnel.		6	3	5
Communication with parents of handicapped children.		4	5	1

C. The following are some of the possible modifications to courses that have been included. Please check ( ) all that you have employed.	Total Response
Reading assignment related to education of handicapped students.	15
Design or adaptation of instructional materials for handicapped student.	8
Behavior management techniques appropriate for handicapped students.	8
Observation or case study of a handicapped student.	8
Design of an IEP.	8
Design or adaptation of a lesson plan for handicapped students.	9
Viewed movie from multimedia package about teaching handicapped children in regular classrooms.	4
Another specific assignment related to the education of handicapped students in regular classrooms.	7

The first question asked to what extent had faculty made modifications to their current course offerings regarding knowledge/skills required for perspective teachers under P.L. 94-142. Eighteen of the 21 faculty indicated that they had made some modification to their courses. A majority (12) indicated that they had made moderate changes to their courses.

A second question asked to what degree the modifications had focused on areas directly related to competencies identified for the project. The modifications were relatively evenly distributed across the several competencies, suggesting that all needed competencies should be addressed at some point in the curriculum. No significant differences were found when the data were analyzed by project vs. non-project participants, or by general educators vs. special educators.

The third question asked the respondents to indicate what kinds of modifications they had made to their courses. Multiple responses were possible. The most frequent response was, "Reading assignments related to the education of the handicapped students," followed by, "Design or adaptation of a lesson plan for handicapped students." Again, no significant differences were found among various subgroups.

The second section included three specific evaluation questions. These data are presented in Table 5. The most positive faculty reaction was in response to Item 2. The majority 17/19 indicated that the project was of moderate or major help in providing an opportunity to learn about the implications of P.L. 94-142 for faculty and students from different cores or divisions. An equally strong response was found in Question 1. Sixteen faculty reported the Deans Grant project was of moderate or major help in providing materials and resources.

Table 5

Faculty Evaluation of D.G.P.

	No Help	Minor Help	Moderate Help	Major Help
To what extent did the project:				
1. Provide materials and resources to assist you in making course/program modifications?	2	1	8	8
2. Provide an opportunity for you to learn about the implications of P.L. 94-142 with faculty/students from a different core/division	0	2	5	12
3. Prescribe what changes should be made to your courses/program?	4	4	6	5

Responses to the question as to the prescriptive nature of the changes needed were about evenly divided.

The Analysis of the responses of those who participated in the project and did not participate is most interesting. Project participants found the project most helpful in assisting them to clarify the needed changes and provided opportunities to learn about the implications of P.L. 94-140 from faculty from other cores/divisions within the school. However, no differences in availability of materials was reported (Table 6).

Table 6

Faculty Reaction - Project Evaluation

Project Team Member vs. Non-member

	X^2	p
Provided materials/resources to assist in course modification/change?	6.28	0.09
Provided opportunity to learn about implications of P.L. 94-142 with faculty/students from different core/divisions?	5.63	0.05
Prescribed change to be made?	9.90	0.02

*likelihood ratio chi square.

The questionnaire provided opportunities for open-ended evaluative comments about the project. Ten of the 22 respondents provided comments.

Two were negative, indicating they thought the project was of little or no value. The balance were generally positive. Opportunities to work with faculty from other divisions was the most positive characteristic of the project, followed closely by attention to opportunities to learn about handicapped youth.

Materials Development

Many of the training materials identified in the preceeding Chapter were completed toward the end of the project. Consequently, little systematic evaluation, other than usage, was possible.

Program Development

Two evaluation activities were conducted regarding the project's goal of program development.

At the end of the first year, an on-site visitation by an evaluation consultant, Dr. Harold Metzell, Associate Dean, The Pennsylvania State University, was sponsored. During his two-day visit, Dr. Metzell met with all participants, talked with students, and provided the project with a comprehensive exit interview and report. (Appendix VII). This report served as an organizer for planning activities for Year Two and Year Three. Highlights of Dr. Metzell's comments were:

1. Absence of attention to the assessment component.
2. The need to move toward an overall conceptualization at the programmatic level.

As a result, during Year Two, bibliography of non-discriminatory materials and a multimedia package for use in the Foundations Core were developed. At the suggestion of Dr. Metzell, the scope and sequence by program was undertaken.

The second summative documentation of the program development impact, is the revised curriculum scope and sequence for the three degree programs (Figures 10, 11, 12). The curriculum redesign represented in these materials is one of the major efforts and accomplishments of the project. Major topics are identified and located within the program sequence. Each scope and sequence reports has been developed by the respective faculties, agreed to by their department chairperson, and are a part of the regular teacher preparation curriculum.

In summary, project participants, about 70% of the general education faculty, found project participation to be a useful and helpful development activity. Faculty report changes to the courses; curriculum reflects changes to program requirements. The two characteristic emphasis of the project, building bridges between special and general educators and curriculum change appears to have been assisted by this project.

Chapter Seven

IMPACT ON STUDENTS AND FIRST YEAR TEACHERS

The longer the project was in operation, the greater the interest in its impact on students and graduates. Data describing student and graduate reactions to project activities are presented in this chapter.

Rationale and Expectations

From conceptualization through conduct, Deans Grant projects have a planning and development focus. As such, they are not training projects. There were little or no expectations for direct project impact on student learning or performance.

This has provided an evaluation dilemma for the Deans Grant program. As discussed by Reynolds (1980), there is a significant distance from the point of project impact, faculty development/program change, to desired goals, the improved education for disabled children placed in least restrictive environments. The intervening steps and points for project gains to be neutralized are numerous. Nonetheless, this project designed a pattern of data collection and analysis to describe student reactions to project activities. These data were expanded to include graduate (first year teacher) reactions as the project matured. It thus became possible, at least in partial panel design, to describe the impact of project activities on student teachers and as first year teachers. Analyses and comparisons illuminate selected aspects of the induction phase of teacher education, at least with respect to P.L 94-142 competencies.

General Methodology

The collection of data from student teachers and first year teachers extended the general evaluation design discussed in the preceeding chapter. The data provide opportunities for formative and summarative inferences regarding project activities and services, though most are made only in a tentative fashion. General methodological considerations were as follows:

Design

In each case, a survey design was used. Student teachers were surveyed mid-way during their last semester. Time was provided during an on-campus student teaching seminar for data collection.

First year teachers were surveyed during the second semester of that year. Mail surveys were sent out shortly after the start of the second semester. A follow-up was sent two weeks later.

Figure 15 presents an overview of the design characteristics for this aspect of the project evaluation.

Figure 15

Design Characteristics - Impact Studies

Project Impact	Purpose Formulative Summative	Data Collection Instrument	Population	Collection Schedule
Student Teachers Elem. Ed.	S	Student Teacher Survey	Senior-Elem. Ed.	Fall 80,81, 82
	F	Rucker-Gable Programming Scale	Sec. Ed.	Spring 81, 82, 83
First Year Teachers	S	First Year Teacher Survey	Graduates Completing First Year of Teaching	Spring 80 Spring 81 Spring 82 Spring 83

Instrumentation

Three survey instruments were used:

1. Student Teacher Survey -- A survey, originally designed by Drs. Garner and Reed, gathered self-report data from student teachers. The instrument went through several revisions over the life of the project, though the basic information gathered remained constant. Although critiqued by the Evaluation Training Consortium, as a project, designed instrument psychometric properties are unknown. A copy constitutes Appendix VIII.

2. Rucker-Gable Educational Programming Scale (RGEPS) -- The second instrument used to gather student data was the Rucker-Gable Educational Programming Scale. The manual states "the instrument measures attitudes

toward and knowledge of appropriate program placements for handicapped children" (Rucker & Gable, 1974, p. 2). The scale provides responses for the disability areas of (a) mental retardation, (b) emotional disturbance, and (c) learning disabilities, and for the disability levels of (d) mild, (e) moderate, and (f) severely handicapped. Total attitudes and knowledge scales are included.

> Knowledge in the RGEPS is defined as a respondent's agreement with a group of 35 experts in special education (p. 6)
>
> Attitude scores are calculated directly from the respondents' placement choices...(and) can be thought of as a measure of the social distance a teacher wants to maintain between herself or himself and a variety of types and degrees of handicapping conditions. Attitude scores can also be regarded as a measure of the respondent's willingness to move handicapped children closer to the mainstream of education. (pp. 4-5)

Scale reliabilities (internal consistency) range from 0.81 to 0.95. A copy constitutes Appendix IX.

Recent research (Henry & Graham, 1980; Graham & Henry, 1981) has raised doubt over the reliability and validity of the RGEPS. Consequently, these findings need to be interpreted in light of this new data.

3. First Year Teacher Survey -- A survey, similar in content to the student teacher survey, was designed for first year teachers. The similarity of items provided for comparison of responses between student teaching and first year teaching. This survey also underwent several revisions in format over the course of the project. As a project made instrument psychometric properties are unknown. A copy constitutes Appendix X.

Population and Samples

Data was collected each semester of the project from student teachers and annually from first year teachers. Both elementary and secondary student teachers and first year teachers were surveyed. In total, data was collected from 193 student teachers and 110 first year teachers. A description of these populations and samples appears in Table 7.

Table 7

Populations and Samples

	1980/81			1981/82			1982/83		
	Pop.	Samp.	%	Pop.	Samp.	%	Pop.	Samp.	%
Student Teachers									
Elementary	82	72	87.8	52	38	73.0	46	40	86.9
Secondary	19	10	52.6	21	18	85.7	15	15	100
First Year Teachers	137	52	38.0	108	22	20.4	79	36	45.5

Student teacher reaction to project activities was assessed by way of the Student Teacher Survey and the Rucker-Gable Educational Programming Scale (RGEPS).

Student Teacher Survey Data

Findings from the student teacher survey will be presented around two themes. First, a data from a number of the items present a description of the clinical settings with particular reference to the impact of P.L. 94-142. A second group of items presents a description of student teacher reaction to their preparation and indirectly to project impact.

Characteristics of the Student Teaching Setting

A description of the student teaching placements over the period of the project is presented in Tables 8, 9, and 10. Table 8 presents the percent of student teachers by level and year with handicapped children. Table 9 reports the percent of student teachers who report contact with handicapped children beyond the classroom setting.

Finally, Table 10 presents the frequency of handicapped conditions reported in classrooms where student teachers were placed.

Table 8

Percent of Student Teachers With Handicapped Children in Classroom

	1980/81		1981/82		1982/83	
Elementary	32/22	44%	23/38	60%	16/39	41%
Secondary	7/10	70%	3/6	50%	6/15	40%

Table 9

Percent of Student Teachers Who Report Contact With Handicapped Children

(Excluding Classroom Involvement)

	1980/81		1981/82		1982/83	
Elementary	20/72	28%	15/38	39%	13/40	33%
Secondary	4/10	40%	4/18	22%	8/15	53%

Table 10

Incidence by Handicapping Condition
per Student Teacher Placement

- Elementary Level -

	1980/81		1981/82		1982/83	
	Fall	Spring	Fall	Spring	Fall	Spring
EMR	1/29 = .03	4/43 = .09	2/9 = .22	1/28 = .04	3/25 = .12	2/17 = .12
LD	17/29 = .59	19/43 = .44	7/9 = .78	10/28 = .36	9/25 = .36	14/17 = .82
VI	0/29 = .00	2/43 = .05	0/9 = .00	4/28 = .14	7/25 = .28	1/17 = .06
HI	4/29 = .14	6/43 = .14	2/9 = .22	3/28 = .11	7/25 = .28	2/17 = .12
ED	8/29 = .28	6/43 = .14	8/9 = .89	6/28 = .21	3/25 = .12	3/17 = .18
SI	n/a	8/48 = .19	n/a	n/a	10/25 = .40	4/17 = .24
OH	n/a	20/43 = .47	n/a	n/a	4/25 = .16	0/17 = .00
PH	1/29 = .03	3/43 = .07	2/9 = .22	5/28 = .18	3/25 = .12	3/17 = .18
Total Placements						

- Secondary Level -

	1981	1982	1983
EMR	4/9 = .44	5/18 = .28	0/15 = 0.00
LD	9/9 = 1.00	30/18 = 1.60	6/15 = .40
VI	0/9 = .00	1/18 = .06	0/15 = 0.00
HI	2/9 = .22	3/18 = .17	1/15 = 0.07
ED	3/9 = .33	8/18 = .44	8/15 = .53
SI	2/9 = .22	n/a	1/15 = 0.07
OH	0/9 = .00	n/a	0/15 = 0.00
PH	1/9 = .11	7/18 = .11	1/15 = 0.07
Total Placements			

The data suggest that about half of our student teachers are placed in a classroom where a disabled child is enrolled. Additionally, some student

teachers have contact with disabled children beyond their primary placement. The frequency of handicapping conditions reported parallels the data reported for Virginia's schools at large.

Student Teacher Reaction to Preparation

The impact of the project on student teachers may be inferred from the data presented in Tables 11, 12 and 13. Table 11 presents data on student teacher awareness of the implications of P.L. 94-142 by level and years of the project. Over all, 94.3% (166/170) of the student teachers reported on awareness of P.L. 94-142.

Student teacher perception of adequacy of their pre-service preparation with respect to the concepts implied by P.L. 94-142 is presented in Table 12. Throughout the project, over half of the elementary teachers reported they felt adequate or well prepared. Slightly fewer (40%) of the secondary student teachers reported this level of satisfaction with their pre-service preparation.

Student teacher insecurity in dealing with disabled children in regular classrooms is reflected in the data presented in Table 13. A consistantly high percentage (60%+) of student teachers feel the need for additional training.

Finally, the adequacy of training by specific P.L. 94-142 concepts is presented in Table 14.

Table 11

Percent Student Teachers Awareness of Implications of P.L. 94-142

	1980/81	1981/82	1982/83
Elementary			
Yes	93	100	97
No	7	0	3
Secondary			
Yes	80	100	86
No	20	0	14

Table 12

Percent of Student Teacher Rating Adequacy of Preparation

	1980/81	1981/82	1982/83
Elementary			
Well	6	3	8
Adequate	43	50	46
Poor	38	42	41
Not	3	5	5
Secondary			
Well	20	-	13
Adequate	60	38	33
Poor	10	38	47
Not	10	22	7

Table 13

Percent of Student Teachers Who Feel Need for More Training

	1980/81	1981/82	1982/83
Elementary	62	71	72
Secondary	90	67	87

Table 14

Percent Student Teacher Response to Adequacy of Preparation by Training Concepts

Concepts*	1980/81		1981/82		1982/83	
	E/G	P/N	E/G	P/N	E/G	P/N
Elementary						
1	25	75	79	21	49	51
2	38	62	42	58	33	67
3	47	53	63	37	45	55
4	76	23	87	13	73	27
5	42	58	37	63	35	65
6	65	35	61	39	59	41
7	46	54	34	66	47	53
Secondary						
1	50	50	22	78	60	40
2	10	90	28	72	33	67
3	10	90	28	72	60	40
4	60	40	56	44	87	13
5	20	80	44	56	53	47
6	20	80	50	50	60	40
7	20	80	44	56	40	60

*Concepts:

1. Understanding the nature and limitations of each handicapping condition.

2. Understanding diagnostic procedures and tests for identifying these children.
3. Behavior management techniques.
4. Helping normal children to understand and accept children with handicaps.
5. Selection of curriculum content methods and materials.
6. Communication with special education and support personnel.
7. Communication with parents of handicapped children.

Several observations appear germaine with reference to these data. First, the impact on the secondary program is in evidence across the three year period. The decline in positive responses from elementary student teachers may reflect the effect of earlier project impact or a reduction in emphasis as project emphasis shifted. Second, in spite of concerted efforts to expand instructional efforts regarding diagnostic procedures and testing in the identification of disabled children, student teachers continued to rate their preparation in this area low. Finally, the relatively stable response to the item, communication with special education and support personnel from elementary student teachers coupled with the dramatic increase across the project years by secondary student teachers supports the project design in breaking down the barriers between regular and special education.

Rucker - Gable Educational Programming Scale Data

Over the course of the total Deans Grant effort, data was gathered each semester from student teachers in response to the Rucker-Gable Educational Programming Scale. At the outset of the project, the RGEPS was selected as being an appropriate summative measure of teacher competency in this area. However, over the life of the project, new research has been published which suggests that the reliability and

validity of the instrument is suspect. Nonetheless, the data provides interesting insights into the impact of the project on student teachers.

Mean scores on the RGEPS are presented in Table 15 for elementary and secondary majors. Complete data for each subscale is presented in Appendix XI. In general, the scores for elementary majors were more positive toward placing disabled children in their classes (attitude). Knowledge scores suggested that respondents did not agree with the aspects regarding the appropriations of placement decisions for disabled children.

Table 15

Mean Scores RGEPS

	1980-81		1981-82		1982-83	
Elem. Student Teachers	F	S	F	S	F	S
Attitude	123.8	128.2	122.5	129.3	127.0	118.5
Knowledge	6.8	7.2	6.3	6.7	7.2	6.1
Sec. Student Teachers						
Attitude	-	-	-	119.4	-	117.3
Knowledge	-	-	-	7.1	-	15.4

Norm - Original (19

Attitude 121.5
Knowledge 4.8

Henry-Graham Data (1981)

Attitude 128.0 (Revisited Original Sample)
117.1 (Public School Experts)

The availability of RGEPS data provided an opportunity to answer several evaluation questions. Two are presented here:

Project Impact Over-Time. Given the availability of RGEPS data for elementary education majors for the class of 1982, it was possible to conduct a pre-post analysis for this panel of students. Mean scores for groups freshman and seniors were analyzed using t-test. Appropriate data are presented in Table 16. Significant changes were found on only one variable over the course of their collegiate career, e.g., knowledge of placement of severely disabled children. Responses to other variables remained stable, a not surprising finding given nature of the design (panel), the instrument, and the potency of intervention. Changes on the attitude variables, moderate, learning disabled, and total attitude were in the observed direction.

Differences Between Elementary and Secondary Student Teachers. An analysis between elementary and secondary teacher subgroups was conducted for both years 1982 and 1983. These analysis are presented in Appendix XII. No significant differences were found between the two groups, a surprising finding in view of the nature and characteristics of the two settings.

Table 16

t test RGEPS Class 1982 Panel

	Freshman N=39		Seniors N=23				
Attitude	$\bar{X}$	SD	$\bar{X}$	SD	t	df	p
Mild	42.3	5.47	44.3	4.52	-1.47	60.0	0.15
Moderate	65.7	9.21	63.1	6.02	1.35	59.3	0.18
Severe	12.1	3.34	11.1	2.41	1.67	60.0	0.10
MR	29.1	5.56	28.7	5.31	0.27	60.0	0.78
ED	48.3	6.42	48.0	5.44	0.22	60.0	0.83
LD	43.0	5.71	41.8	3.57	1.05	59.7	0.29
Total	120.5	15.6	118.5	10.34	0.59	59.0	0.55
Knowledge							
Mild	3.4	1.26	3.7	1.09	-0.89	60.0	0.37
Moderate	4.5	1.01	4.4	1.01	0.59	60.0	0.55
Severe	2.4	.93	1.8	1.81	2.82	60.0	.006**
MR	3.4	.97	3.1	1.04	1.38	60.0	0.17
ED	3.8	1.08	3.9	1.31	- .28	60.0	0.78
LD	3.6	.95	3.3	0.92	1.21	60.0	0.23
Total	6.4	1.34	6.1	1.30	0.70	60.0	0.48

Impact on First Year Teachers

Annually, first year teachers were surveyed. The first year teachers survey was constructed so as to indicate responses to items similar to those asked in the student teacher survey. Responses provided data on both the characteristics of their teaching assignment with regard to disabled children and their reactions to their training after several months of experience.

Characteristics of First Year Teachers Assignments

The percent of first year teachers with handicapped children in their classrooms is presented in Table 17. The percent at the elementary level remained rather constant over the period of the project at about 54%, while the percent at the secondary level was higher two of the three years. The range and percent of disabled children by handicapping condition is presented in Tables 18 and 19.

Table 17

Percentage of First Year Teachers Serving Handicapped Children in Classrooms

	Elementary	Secondary	Total
1980/81	22/39 = 56%	10/13 = 77%	33/52 = 63.5%
1981/82	9/17 = 53%	1/5 = 20	10/22 = 45.5%
1982/83	9/16 = 56%	6/7 = 86%	15/23 = 65.2%

Table 18

Incidence of Handicapped Conditions by Classrooms of First Year Elementary Teachers

	1981	1982	1983
EMR	6/39 = .15	3/17 = .18	2/16 = .13
LD	15/39 = .38	7/17 = .41	9/16 = .56
VI	8/39 = .21	3/17 = .18	2/16 = .13
MI	4/39 = .0	0 = 0	2/16 = .13
ED	13/39 = .33	7/17 = .41	9/16 = .56
SI	17/39 = .44	7/17 = .41	5/16 = .31
OH	2/39 = .05	2/17 = .12	0 = 0
PH	6/39 = .15	3/17 = .18	1/16 = .06
Total Classrooms	39	17	16

Table 19

Incidence of Handicapped Conditions
by Classrooms of First Year
Secondary Teachers

	1981	1982	1983
EMR	2/13 = .15	1/5 = .20	0 = 0
LD	12/13 = .92	2/5 = .40	4/7 = .57
VI	2/13 = .15	0 = 0	2/7 = .29
MI	6/13 = .46	1/5 = .20	1/7 = .14
ED	8/13 = .62	2/5 = .40	2/7 = .29
SI	5/13 = .38	0 = 0	1/7 = .14
OH	3/13 = .23	0 = 0	1/7 = .14
PH	1/13 = .08	0 = 0	2/7 = .29
Total Classrooms	13	5	7

First Year Teacher Reaction to Preparation

Several of the items were designed to provide first year teachers to assess their teaching education preparation. Ninety-three percent indicated an awareness of the implications of the P.L. 94-142 for teachers. Percentages by year and level are presented in Table 20.

Table 20

Percent Awareness

of

Implications of P.L. 94-142

	1980/81	1981/82	1982/83
Elementary	97.4	100.0	95.8
Secondary	84.6	80.0	75.0

General reaction to satisfaction of total preparation to deal with implications of P.L. 94-142 is presented in Table 21. Overall, 33% rated their preparation excellent or adequate during their first year on the job. However, the level of satisfaction improved over the period of the project. Graduates in 1982 (first year teacher in 1983) were more satisfied than their predecessors, suggesting the cumulative impact of the project.

Table 21

First Year Teacher
Satisfaction With Training (Percent)

	1980/81	1981/82	1982/83
Well Prepared	-	5	8
Adequately Prepared	12	9	47
Poorly Prepared	33	59	42
Not Prepared	55	27	5

A more detailed analysis of first year teachers assessment of their preparation is presented in Table 22. In general, first year teachers are more positive toward their training than were student teachers. Across six of the seven concepts, over fifty percent annually rated their training excellent or good. the seventh area, use of diagnostic procedures, increased over the period of the project.

Table 22

Percent Response of First Year Teachers
in Preparation for P.L. 94-142

	1981		1982		1983	
Concepts*	E/G	P/N	E/G	P/N	E/G	P/N
1	56.3	43.7	68.2	31.8	52.7	47.3
2	36.4	63.6	45.5	54.5	72.2	27.8
3	65.5	34.5	68.1	31.9	66.6	33.3
4	65.5	34.5	77.3	22.7	80.5	19.5
5	60.0	40.0	72.7	27.3	50.0	50.0
6	72.7	27.3	72.7	27.3	66.6	33.3
7	61.8	38.2	77.3	22.7	61.1	38.9

* 1. Understanding the nature and limitations of each handicapping condition.
2. Understanding diagnostic procedures and tests for identifying these children.
3. Behavior management techniques.
4. Helping normal children to understand and accept children with handicaps.
5. Selection of curriculum content methods and materials.
6. Communication with special education and support personnel.
7. Communication with parents of handicapped children.

Summary

The project had some impact on students and first year teachers. Student teachers reported awareness of P.L. 94-142 and its implications for the classroom teacher. First year teachers reported greater satisfaction with all elements of the training program. An area receiving unusually strong assessment was communication among regular and special educators.

Chapter Eight

RETROSPECT

In retrospect, the project was generally successful given its goals and objectives. It served as a stimulant for faculty to examine their course offerings and to make appropriate modifications. It provided a forum for general and special educators to cross departmental lines and colaborate with each other in the training of the general educator. It supported the creation and/or selection of needed instructional materials which are now used by faculty and students. It legitimized and fostered the inclusion of new expectations for pre-service teachers through revised program requirements. It encouraged several faculty to explore further the impact of the disabled child placed in the regular classroom on teachers, peers, and university faculty. Serendipitously, it permitted faculty from this institution to become acquainted with colleagues from other institutions.

While the project fell short of achieving all it desired, it can be argued that no longer will pre-service students at this institution be trained without an awareness of and skills to support the mandate of P.L. 94-142. While much remains to be achieved, these programs are more "responsive to the needs of handicapped children" than prior to the intervention of this project.

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APPENDIX

I. Team Membership

II. Project Chronology

III. Transition Workshop Design

IV. Faculty Presentations and Participation at Conferences, Workshops, Meetings

V. Schein Scale

VI. Faculty Reaction Form

VII. Metzell Site Visit Report

VIII. Student Teacher Survey

IX. RGEPS

X. First Year Teacher Survey

XI. RGEPS Data

Appendix I

Deans Grant Project

General Education/Special Education

Virginia Commonwealth University
School of Education

Project Teams (MDT's) 1980-81

Secondary Education Team

Alan McLeod - English Education
William Goggin - English Education
George Giacobbe - Special Education (ED)
Terry Rotiman - Graduate Student

Foundation Team

Samuel Craver - Foundations
James McMillan - Education Psychology/Research
Brenda Kauffman - Special Education (MR)
Roberta Clark - Graduate Student

Occupational Education Team

Thomas Hephner - Occupational Education (DE)
Walter Ramey - Occupational Education (T&I)
Judy Wood - Special Education (MR)
Renea Downer - Graduate Student

Project Teams (MDT's) 1981-1982

Foundations Team

James Bailey - Foundations
Ena Gross - Elementary Education (Math)
Ada Hill - Special Education (MR)
Ann Garner - Graduate Assistant

Occupational Education Team

Thomas Hephner - Occupational Education (DE)
Brian Jacobs - Occupational Education (DE)
Judy Wood - Special Education (MR)
Peggy Fisher - Graduate Student

Secondary Team

Howard Garner - Special Education (ED)
William Goggin - English Education
Martin Tarter - Social Studies Education
Sheila Evans - Graduate Student

Project Teams (MDT's) 1982-83

Project Team

Howard Garner - Special Education (ED)
William Goggin - Secondary Education (Eng. Ed)
Angela Ferguson - Graduate Student

Project Management

Dr. Charles Ruch - Director
Pat Mozingo - Administrative Assistant (1980-81)
Sue Hazelett - Administrative Assistant (1981)
Angela Ferguson - Administrative Assistant (1981-83)

Appendix II

Dean's Grant Project

Chronology of Meetings, Presentations, Workshops, Events 1980-1983

May 1, 1980	Project Starts
July 24, 1980	Meeting
July 25, 1980	Workshop (Big Team)
September 5, 1980	Meeting
October 7, 1980	Meeting
October 31, 1980	Meeting
November 18, 1980	Meeting
1980	Ada Hill, Ph.D. Presentation at the Institute for Higher Education Conference "Dean's Mainstreaming Grant: Field Experiences" Lynchburg, VA.
1980	Ada Hill, Ph.D. Presentation at the I.R.A. Southeastern Region Conference "Grouping for Reading in the Mainstreamed Classroom" Norfolk, VA.
January 8, 1981	Meeting (minutes)
Jan. 21-23, 1981	Charles Ruch, Ph.D. Presentation at the Southeast Region Dean's Grant Conference, Raleigh, NC. Also attending: Brenda Kauffman, Judy Wood, Ph.D., William Goggin, Ph.D., and Walter Ramey.
February 5, 1981	Meeting
February 9, 1981	Meeting (minutes)
February 17, 1981	Ada Hill, Ph.D. Presentation at the Association of Teacher Educators' Conference "Clinical Experiences to Prepare Preservice Teachers for Mainstreaming" Dallas, TX.
March 5, 1981	Meeting (minutes)
April 22, 1981	Film presentation "Mainstreaming: A Film Festival" at the Southeast Region's Conference, Raleigh, NC.

April 27, 1981	Meeting
April 29-May 1, 1981	Charles Ruch, Ph.D. Presentation of National Meeting of Dean's Grant Projects, Arlington, VA.
April 30, 1981	Brenda Kauffman - Faculty team representative at National Meeting of Dean's Grant Projects, Arlington, VA.
April 30-May 1, 1981	Judy Wood, Ph.D. Presentation at the National Meeting of Dean's Grant Projects "Peer Relations in the Mainstream" (L. Wheatly, second author) Arlington, VA.
May 4, 1981	On-site project evaluation by Harold Mitzel, Ph.D.
May 27, 1981	Meeting
September 4, 1981	Workshop
October 1, 1981	Meeting (student assistants only)
October 2, 1981	Issues in the Training of Secondary Teachers Regarding Mainstreaming.
October 17, 1981	Ada Hill, Ph.D. Presentation at the Virginia Association of Teachers of English Fall Conference "Diagnostic Prescriptive Teaching in Language Arts" Blacksburg, VA
November 13, 1981	Meeting
January 8, 1982	Meeting (minutes)
February 14, 1982	Ada Hill, Ph.D. Presentation at the Association of Teacher Educators Annual Meeting "Teachers Concerns About Mainstreaming" Phoenix, AZ.
February 16, 1982	Judy Wood, Ph.D. Presentation at the Association of Teacher Educators Annual Meeting "Profile of a Successful Mainstreaming Teacher" Phoenix, AZ
March 4, 1982	Meeting
March 22, 1982	Special meeting with David Thomas - Liverpool University, Liverpool, England.

March 24, 1982	Meeting
April 18-19, 1982	Charles Ruch, Ph.D. Presentation at Southeast Dean's Grant Meeting, Atlanta, GA.
April 26, 1982	Meeting
April 28-30, 1982	Charles Ruch, Ph.D. Presentation of Annual Meeting of Dean's Grant Projects National Support Systems Project, Minneapolis, MN
September 3, 1982	Meeting (minutes)
September 17, 1982	Meeting (minutes)
September 24, 1982	Panel discussion by resource teachers from Richmond City, Henrico County, and Chesterfield County "The Special Education Resource Teacher: The Mainstreaming Experience". Luncheon planning meeting at "Ruby Tuesday's", Richmond, VA for members of Dean's Mainstreaming Grant with six teachers representing Richmond City, Henrico County, and Chesterfield County.
September, 1982	Ada Hill, Ph.D. Presentation at Curriculum Specialists Workshop "Teaching Educable Mentally Retarded Children How to Study in Mainstreamed Settings" Richmond Public Schools.
October 4, 1982	Meeting (minutes)
October 18, 1982	Meeting (minutes)
October 25-30, 1982	Mark Runac Traveled to Henrico County, Chesterfield County and City of Richmond to meet with consultants regarding the development of the Adapted Physical Education Guide.
November 16, 1982	Howard Garner, Ph.D. Lecture to EDU 301 class "Mainstreaming".
November 19, 1982	Faculty seminar "Characteristics of the Mainstreamed Handicapped Student" presenters: Drs. George Giacobbe, Ada Hill, and Jean Lokerson.
November 22, 1982	Meeting (minutes)

December 2, 1982	Faculty seminar "Teaching Mainstreamed Middle and Secondary Students with Serious Reading Handicaps" presenters: Drs. Elise Blankenship, Mary Brittain, James Hodges, and Judy Wood.
December 17, 1982	Meeting (minutes)
December 1982	Brian Jacobs, Ph.D. Presentation at the American Vocational Association Conference "Mainstreaming Needs Assessment of Virginia Regular Marketing and Distributive Education Teachers - Coordinators" St. Louis, MO.
January 27, 1983	Faculty seminar "The Assessment of Handicapped Pupils and the Development of the I.E.P.: Theory and Practice" presenters: Drs. Nancy Fallen and George McClary and Ms.'s Denna Joy and Joanne Marchant.
February 22, 1983	Howard Garner, Ph.D. Lecture at the Secondary Education Teaching Seminar "Classroom Management Strategies".
February 24, 1983	Faculty seminar "Mathematics and the Handicapped" presenters: Drs. Ena Gross, Mike Lohr, and Jon VandeWalle.
February 26-27, 1983	Angela Ferguson Presentation "Dean's Mainstreaming Project at Virginia Commonwealth University" at the Eastern Educational Research Association Convention, Baltimore, MD
March 8-18, 1983	Mark Runac Traveled to Chesterfield County, Henrico County, and Hanover County regarding Adapted Physical Education Guide.
March 16, 1983	Howard Garner, Ph.D. Lecture at the Elementary Education Student Teaching Seminar "Classroom Management of Mainstreamed Pupils".
March 21, 1983	Meeting
March 29, 1983	Faculty seminar "Interdisciplinary Teamwork: Myth or Reality" presenters: Drs. Howard Garner, Arnold Stolberg, and Claire Wompierski.
April 21, 1983	Meeting
April 30, 1983	Project Ends.

Appendix III

DEAN'S GRANT PROJECT WORKSHOP

Virginia Commonwealth University
Richmond, Virginia

July 25, 1980

AGENDA

1:00 -Luncheon

-Overview of project
Goals, Strategies, Resources

-Overview of Secondary Education/Teacher Education Program

-Overview of Vo Tech Education Program

-Plans of First Year

-Questions

-Adjournment

Presentations

Angela Ferguson

February 26-27, 1983	Presentation at the Eastern Educational Research Association Convention "Dean's Grant Project at Virginia Commonwealth University" Baltimore, MD

Howard Garner

November 16, 1982	Lecture to EDU 301 class "Mainstreaming"
February 22, 1983	Lecture at the Secondary Education Teaching Seminar "Classroom Management Strategies"
March 16, 1983	Lecture at the Elementary Education Student Teaching Seminar "Classroom Management of Mainstreamed Pupils"

Ada Hill

1980	Presentation at the Institute for Higher Education Conference "Dean's Mainstreaming Grant: Field Experiences" Lynchburg, VA
1980	Presentation at the I.R.A. Southeastern Region Conference "Grouping for Reading in the Mainstreamed Classroom" Norfolk, VA
February 17, 1981	Presentation at the Association of Teacher Educators' Conference "Clinical Experiences to Prepare Preservice Teachers for Mainstreaming" Dallas, TX
October 17, 1981	Presentation at the Virginia Association of Teachers of English Fall Conference "Diagnostic Prescriptive Teaching in Language Arts" Blacksburg, VA
February 14, 1982	Presentation at the Association of Teacher Educators Annual Meeting "Teachers Concerns About Mainstreaming" Phoenix, AZ

September, 1982	Presentation at Curriculum Specialists Workshop "Teaching Educable Mentally Retarded Children How to Study in Mainstreamed Settings" Richmond Public Schools

Brian Jacobs

December, 1982	Presentation at the American Vocational Association Conferences "Mainstreaming Needs Assessment of Virginia Regular Marketing and Distributive Education Teachers - Coordinators" St. Louis, MO

Charles Ruch

January 1981	Presentation at the Southeast Dean's Grant Meeting "Four Myths of Dean's Grants" Raleigh, NC
April 1982	Presentation at the National Deans Grant Directors Meeting "The Dean's Grant Project Graduate in the Regular Classroom - A Fast Look at Follow-up Data" Minneapolis, MN
April 1982	Presentation at the Southeastern Regional Deans Grant Directors Meeting "Dean's Grant Projects - Next Steps" Atlanta, GA
May 1982	Presentation at the National Dean's Grant Directors Meeting "Some Good News, Some Bad News: Evaluation Results from Three Years of Dean's Grant Project Efforts" Washington, DC
March 1983	Presentation at C.E.C. Annual Meeting, "Mainstreaming Development Teams: The Strategy of the VCU Dean's Grant Project" Detroit, MI

Judy Wood

April 30-May 1, 1981	Presentation at the National Meeting of Dean's Grant Projects "Peer Relations in the Mainstream" (L. Wheatly, second author), Arlington, VA
February 16, 1982	Presentation at the Association of Teacher Educators Annual Meeting "Profile of a Successful Mainstreaming Teacher" Phoenix, AZ

SMALL TEAM EVALUATION

TEAM: _____

Appendix V

Rating Group Effectiveness

A: Goals

Poor	1	2	3	4	5	6	7	8	9	10	Good
Confused; diverse; conflicting; indifferent; little interest.											Clear to all; shared by all; all care about the goals, feel involved.

B: Participation

Poor	1	2	3	4	5	6	7	8	9	10	Good
Few dominate; some passive; some not listened to; several talk at once or interrupt.											All get in; all are really listened to.

C: Feelings

Poor	1	2	3	4	5	6	7	8	9	10	Good
Unexpected; ignored or criticized.											Freely expressed; empathic responses.

D: Diagnosis of group problems

Poor	1	2	3	4	5	6	7	8	9	10	Good
Jump directly to remedial proposals; treat symptoms rather than basic causes.											When problems arise the situation is carefully diagnosed before action is proposed; remedies attack basic causes.

E: Leadership

Poor	1	2	3	4	5	6	7	8	9	10	Good
Group needs for leadership not met; group depends too much on single person or on a few persons.											As needs for leadership arise various members meet them ("distributed leadership"); anyone feels free to volunteer as he sees a group need.

F: Decisions

Poor	1	2	3	4	5	6	7	8	9	10	Good
Needed decisions don't get made; decision made by part of group; others uncommitted.											Consensus sought and tested; deviates appreciated and used to improve decision; decisions when made are fully supported.

G: Trust

Poor	1	2	3	4	5	6	7	8	9	10	Good
Members distrust one another; are polite, careful, closed, guarded; they listen superficially but inwardly reject what others say; are afraid to criticize or to be criticized.											Members trust one another; they reveal to group what they would be reluctant to expose to others; they respect and use the responses they get; they can freely express negative reactions without fearing reprisal.

H: Creativity and growth

Poor	1	2	3	4	5	6	7	8	9	10	Good
Members and group in a rut; operate routinely; persons stereotyped and rigid in their roles; no progress.											Group flexible, seeks new and better ways; individuals changing and growing; creative; individually supported.

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PROJECT TEAM EVALUATION

TEAM: _____

Rating Group Effectiveness

A: Goals

Poor	1	2	3	4	5	6	7	8	9	10	Good
Confused; diverse; conflicting; indifferent; little interest.											Clear to all; shared by all; all care about the goals, feel involved.

B: Participation

Poor	1	2	3	4	5	6	7	8	9	10	Good
Few dominate; some passive; some not listened to; several talk at once or interrupt.											All get in; all are really listened to.

C: Feelings

Poor	1	2	3	4	5	6	7	8	9	10	Good
Unexpected; ignored or criticized.											Freely expressed; empathic responses.

D: Diagnosis of group problems

Poor	1	2	3	4	5	6	7	8	9	10	Good
Jump directly to remedial proposals; treat symptoms rather than basic causes.											When problems arise the situation is carefully diagnosed before action is proposed; remedies attack basic causes.

E: Leadership

Poor	1	2	3	4	5	6	7	8	9	10	Good
Group needs for leadership not met; group depends too much on single person or on a few persons.											As needs for leadership arise various members meet them ("distributed leadership"); anyone feels free to volunteer as he sees a group need.

F: Decisions

Poor	1	2	3	4	5	6	7	8	9	10	Good
Needed decisions don't get made; decision made by part of group; others uncommitted.											Consensus sought and tested; deviates appreciated and used to improve decision; decisions when made are fully supported.

G: Trust

Poor	1	2	3	4	5	6	7	8	9	10	Good
Members distrust one another; are polite, careful, closed, guarded; they listen superficially but inwardly reject what others say; are afraid to criticize or to be criticized.											Members trust one another; they reveal to group what they would be reluctant to expose to others; they respect and use the responses they get; they can freely express negative reactions without fearing reprisal.

H: Creativity and growth

Poor	1	2	3	4	5	6	7	8	9	10	Good
Members and group in a rut; operate routinely; persons stereotyped and rigid in their roles; no progress.											Group flexible, seeks new and better ways; individuals changing and growing; creative; individually supported.

FACULTY REACTION FORM Appendix VI

Deans Grant Project: General Education/Special Education (1980-83)
Virginia Commonwealth University
School of Education

Check as appropriate: Member project team ____ General education faculty ____
Holder of minigrant ____ Special education faculty ____

1 No Change
2 To a Minor Degree
3 To a Moderate Degree
4 To a Major Degree

A. Have you made modifications to current course offerings regarding knowledge/skills required for prospective teachers under P L 94-142?

B. To what degree have your modifications focused on the following topical areas:

1 2 3 4 Understanding the nature of and limitations of each handicapping condition.

1 2 3 4 Understanding diagnostic procedures and tests for identifying these children.

1 2 3 4 Behavior management techniques.

1 2 3 4 Helping normal children to understand and accept children with handicaps.

1 2 3 4 Selection of curriculum content, methods, and materials.

1 2 3 4 Communication with special education and support personnel.

1 2 3 4 Communication with parents of handicapped children.

C. The following are some of the possible modifications to courses that have been included. Please check ( ) all that you have employed.

____ Reading assignment related to education of handicapped students.
____ Design or adaptation of instructional materials for handicapped student.
____ Behavior management techniques appropriate for handicapped students.
____ Observation or case study of a handicapped student.
____ Design of an IEP.
____ Design or adaptation of a lesson plan for handicapped students.
____ Viewed movie from multimedia package about teaching handicapped children in regular classrooms.
____ Another specific assignment related to the education of handicapped students in regular classrooms. Example:

over, please...

Project Evaluation

1 = No help
2 = Minor help
3 = Moderate help
4 = Major help

D. To what extent did the project:

1 2 3 4 Provide materials and resources to assist you in making course/program modifications?

1 2 3 4 Provide an opportunity for you to learn about the implications of PL 94-142 with faculty/students from a different core/division?

1 2 3 4 Prescribe what changes should be made to your courses/program?

General Comments about the Project:

Please return this form to Angela Ferguson, 2090 Oliver Hall, School of Education.
4/83

THE PENNSYLVANIA STATE UNIVERSITY
243 CHAMBERS BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Education
Associate Dean for Research
and Graduate Studies

Area Code 814
865-2525

May 5, 1981 MAY 8 1981

Dr. Charles Ruch, Dean
School of Education
901 W. Franklin Street
Virginia Commonwealth University
Richmond, VA 23284

Dear Charles:

In giving you a brief rundown on my review of the Dean's project at the School of Education, let me first compliment you and the faculty for a well-planned event. It worked without hitch or glitch. I was impressed with the relaxed but business-like discussions.

I have two recommendations which I advanced during the visit. The first is the apparent need for your faculty to develop a set of teacher education objectives that are comprehensive in nature with respect to those provisions of PL 94-142 which relate directly to preservice teacher preparation. The three MDT's are each producing information or study materials, but the faculty does not appear to be sure how much their piece is of the total job. My second suggestion is that you look for the resources in Washington or in Richmond to build and maintain an inventory of handicapped children in the state or perhaps in your surrounding district. This should be a computerized inventory listing the name, age, handicap in some detail, school district, room assignment, grade level, and teacher's name. Such an inventory would enable you to place student teachers in situations that would enable them to have appropriate experiences with mainstreamed handicapped children at appropriate age levels. The inventory would be especially valuable in deciding on sophomore level practicum experience for teacher education students. It would beat placing students in local classrooms and then running around to see if there were any handicapped youngsters in the same building or district.

Out of the various instructional objectives for teacher education programs to work toward for the implementation of PL 94-142, I think there are three that deserve special attention because teachers now in the field are generally poorly prepared.

1. Knowledge of diagnostic tests and the ability to scientifically interpret test results in terms of meaningful norms, Here I am not talking about esoteric personality tests but

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plain old garden variety achievement tests. The demands of the IEP make it imperative that all educators have a better understanding of test scoring, reliability, standard error of measurement, validity normative data, score equivalents, etc. than they presently exhibit.

2. Ability to discuss handicapping conditions of a child with the child's parents. Educators are characteristically uncomfortable in dealing with parents, partly because they are on shaky ground in interpreting test results. Counselors may be an exception to this generalization.

3. Educators should be strengthened in their ability to relate to their peers in the processes of schooling. Again, the demands of the IEP procedure for team efforts in regard to the placement and diagnosis of children's education problems require professionals who can refer pupils to others, who understand the appropriate roles for professionals with specialized knowledge. The ability to deal with peers was not in great demand in a time when classrooms were rigidly self-contained. The mainstreamed handicapped pupils have changed the role of teachers and other educators in schools.

I think that wraps up my major observations. I will be sending some printed material to various team members who asked me for particular information.

Be assured that I enjoyed my trip and I wish you well as you continue the secondary education project under Dean Grant's auspices.

Cordially yours,

Harold E. Mitzel
Associate Dean for Research
and Graduate Studies

HEM:bh

P.S. I gave my flight coupon to the baggage tracer and he kept it. Would a receipted bill from the Travel Agency and an itinerary serve as a substitute?

Appendix VIII

Last three digits of SS#

MAINSTREAMING
STUDENT TEACHER SURVEY

Directions: Over the past few semesters, attention has been given to provide VCU graduates with those skills and knowledge necessary to provide instruction to handicapped students placed in regular classrooms. Your reactions to your teaching preparation are appreciated.

A. General Information

(1) What certification program are you completing? (Check one)

Elementary	Secondary	
___ Early Childhood (NK-3)	___ English	___ Distributive Ed.
___ Upper Elementary	___ History	___ Science (Physics, Biology, Chemistry General Sciences)
	___ Social/Science	
	___ Language	
	___ Math	___ Voc.-Tec.

(2) Are you aware of the implications of P.L. 94-142 for the education of handicapped children?

___ Yes ___ No

(3) Do you feel a need for a more detailed understanding of how regular classroom teachers may be affected by the law?

___ Yes ___ No

B. The following questions relate to your student teaching experience.

(1) Are there handicapped children being served in your classroom?

___ Yes ___ No

(2) Are there other handicapped children in your school that you come in contact with routinely?

___ Yes ___ No How many ___

(3) Aer there any gifted children in your classes?

___ Yes ___ No How many ___

(4) How many of each of the following handicapped conditions do your students have?

___ Educable Mentally Retarded	___ Emotionally Disturbed
___ Learning Disabled	___ Speech Impaired
___ Visually Impaired	___ Orthopedically Handicapped
___ Hearing Impaired	___ Physically Handicapped

(over)

C. The following questions relate to your <u>total teacher preparation</u>:

(1) How adequately prepared do you feel you are to work with handicapped children placed in your classroom? (Check one)

___ Well prepared
___ Adequately prepared
___ Poorly prepared
___ Not prepared

(2) The following are areas of preparation with implications for teaching handicapped children in regular classrooms. Please rate the adequacy of your training in such area. (Circle the appropriate response).

<u>E</u>xcellent - I feel really good about my preparation in this area.
<u>G</u>ood - I'm ready for my first full time teaching job, but I will need more preparation in this area on the job.
<u>P</u>oor - I need more preparation in this area.
<u>N</u>one - I never received any preparation in this area.

E G P N Understanding the nature of and limitations of each handicapping condition.

E G P N Understanding diagnostic procedures and tests for identifying these children.

E G P N Behavior management techniques.

E G P N Helping normal children to understand and accept children with handicaps.

E G P N Selection of curriculum content, methods, and materials.

E G P N Communication with special education and support personnel.

E G P N Communication with parents of handicapped children.

(3) There may have been several opportunities over the course of your teacher preparation program to become familiar with the implications for teaching handicapped children in regular classrooms. Please check each activity you have participated in.

___ Reading assignment related to education of handicapped students.
___ Design or adaptation of instructional materials for a handicapped student.
___ Behavior management techniques appropriate for handicapped students.
___ Case study of a handicapped student.
___ Design of an IEP.
___ Design or adapt a lesson plan for handicapped students.
___ Another specific assignment related to the education of handicapped students in regular classrooms.
___ Viewed movie on multimedia package about teaching handicapped children in regular classrooms.

Appendix IX

RUCKER-GABLE EDUCATIONAL PROGRAMMING SCALE

Form A

Chauncy N. Rucker
University of Connecticut

Robert K. Gable
University of Connecticut

Name _____ Date _____

Present position _____

Years teaching experience _____

DIRECTIONS

Teachers are ordinarily faced with a wide variety of problems arising from the many different kinds of students they work with each day. On the following pages are brief descriptions of children actually referred for special education services. For each student you are to indicate what you feel would be the best educational setting at this time.

You would actually need more information before placing most of the students, but please make your best judgements based on the information provided. Assume that all of the programs are available and competently staffed. Also assume that placements within the continuum are flexible and that it is possible for a student to be moved up or down the scale after treatment.

GO ON TO PAGE TWO

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PLACE EACH STUDENT IN ONE OF THE SEVEN PROGRAMS FROM THE CONTINUUM BELOW

REGULAR CLASSROOM - with no basic change in teaching procedures.

CONSULTATION - regular classroom with specialists available for consultation with teacher (or parent) whenever needed.

CONSULTATION & DIRECT SERVICES - regular classroom with specialists available in the school to consult with teacher **and** provide short-term direct services to student.

RESOURCE ROOM - regular classroom with resource room services (special education teacher providing supplemental instruction) provided on a continuing basis in which the student can participate for as much as two hours each day.

PART-TIME SPECIAL CLASS - student enrolled in a special class for the majority of each day, but enters regular classroom for certain subjects.

FULL-TIME SPECIAL CLASS - student assigned to a self-contained special class on a full-time basis.

NOT - student placed in a residential school, hospital program, treatment center, etc. because he or she cannot reasonably be handled within the context of regular or special public education.

If you choose:	RC	CON	CON&DS	RR	PTSC	FTSC	Not
Regular Classroom, circle number seven	(7)	6	5	4	3	2	1
Consultation, circle number six	7	(6)	5	4	3	2	1
Consultation & Direct Services, circle number five	7	6	(5)	4	3	2	1
Resource Room, circle number four	7	6	5	(4)	3	2	1
Part-Time Special Class, circle number three	7	6	5	4	(3)	2	1
Full-Time Special Class, circle number two	7	6	5	4	3	(2)	1
Not for public education, circle number one	7	6	5	4	3	2	(1)

PLEASE RESPOND TO EVERY ITEM

	RC	CON	CON&DS	RR	PTSC	FTSC	Not
1.	7	6	5	4	3	2	1
2.	7	6	5	4	3	2	1
3.	7	6	5	4	3	2	1
4.	7	6	5	4	3	2	1
5.	7	6	5	4	3	2	1
6.	7	6	5	4	3	2	1
7.	7	6	5	4	3	2	1
8.	7	6	5	4	3	2	1
9.	7	6	5	4	3	2	1
10.	7	6	5	4	3	2	1
11.	7	6	5	4	3	2	1
12.	7	6	5	4	3	2	1
13.	7	6	5	4	3	2	1
14.	7	6	5	4	3	2	1
15.	7	6	5	4	3	2	1
16.	7	6	5	4	3	2	1
17.	7	6	5	4	3	2	1

1. Nancy is a third grader who has difficulty keeping her place during oral reading. Her handwriting is labored, the letters are very large and irregular, and she cannot write on the lines. Her work is disorganized. She gives up easily and needs a lot of personal attention.

2. Jim's achievement is approximately two years below expectation for his age of nine. He has great difficulty understanding and following directions and forgets them quickly. He seems to lack any social skills.

3. Clifford, a nine year old, is very alert and imaginative; he is able to discuss a variety of topics intelligently but he is unable to read.

4. Myron is a sixth grader who often becomes aggressive in class. His relationships with other children are usually quarrelsome and he is prone to get into trouble when left alone.

5. Ed repeated kindergarten because of his immaturity and is now having trouble doing his first grade work. If he is included in a group activity, he constantly teases the smaller children. He has to be watched constantly or he will destroy their work in a sadistic manner.

6. Jason, age six, occasionally prints letters backwards, writes from right to left, and is restless in class. His parents are concerned that he is still on reading readiness material rather than in a reading group like his classmates.

7. Herb has made a poor adjustment to his first grade class despite his capability for learning. He has difficulty participating in group functions because he is so mischievous. He often fails to respond to discipline.

8. Ray, age twelve, is a two time repeater with above average potential; he has great difficulty remembering material presented in a visual manner and, in spite of a great deal of remedial reading instruction, remains a non-reader.

9. Kenny is a ten year old with a history of late development. He sat up at age two, he had no recognizable speech until age seven, he learned to walk at age nine, and he is still not toilet trained.

10. Frank's achievement is below that of his fifth grade classmates. He is moody, and a loner who is continually seeking attention and testing adults to see if they like him. At home he has displayed physical violence, but never at school.

11. Leroy beat another first grader so severely that minor surgery was required. He has bitten a number of his classmates and has to be supervised constantly.

12. Charles is an eight year old who has not yet sat up, crawled, or walked. He is unable to communicate in any way. He has no bowel or bladder control, can't feed himself, and is very susceptible to upper respiratory infections.

13. José seems unable to perform the academic requirements of his fifth grade class, particularly in mathematics and language. He has a cheerful compliant personality. He works best on a concrete level.

14. Virginia is an eight year old who does little work in school. She is capable of verbal and physical attacks on anyone when angry. She doesn't seem to care about any school relationships and neither threats nor praise are effective in dealing with her.

15. Tom, age eight, doesn't seem to acquire new skills as quickly as most; he needs to have instructions repeated several times. He has difficulty working individually and needs a great deal of encouragement and supervision.

16. Annalou is new to her present fifth grade class. She seems anxious while she is in school, but is much calmer as soon as she leaves the school grounds. Her schoolwork is slightly below average, but she is quite responsive if encouraged.

17. Jesse, an eight year old, has difficulty keeping up with his class in all subjects. He is very large for his age and quite immature socially. He has a noticeable speech problem.

OPEN FOR REMAINING ITEMS

	RC	CON	CON&DS	RR	PTSC	FTSC	Not
1.	7	6	5	4	3	2	1
2.	7	6	5	4	3	2	1
3.	7	6	5	4	3	2	1
4.	7	6	5	4	3	2	1
5.	7	6	5	4	3	2	1
6.	7	6	5	4	3	2	1
7.	7	6	5	4	3	2	1
8.	7	6	5	4	3	2	1
9.	7	6	5	4	3	2	1
0.	7	6	5	4	3	2	1
11.	7	6	5	4	3	2	1
12.	7	6	5	4	3	2	1
13.	7	6	5	4	3	2	1
14.	7	6	5	4	3	2	1
15.	7	6	5	4	3	2	1
16.	7	6	5	4	3	2	1
17.	7	6	5	4	3	2	1

	RC	CON	CON&DS	RR	PTSC	FTSC	Not		
18.	7	6	5	4	3	2	1	18.	Stan is a twelve year old of average ability who wants desperately to learn to read, but even though he has had remedial instruction, he is virtually a non-reader. He disturbs other children by humming to himself much of the time. Although he is frustrated in most academic endeavors, he does very well in experiments and class discussions in science and on all oral tests.
19.	7	6	5	4	3	2	1	19.	Jerry is a seven year old who disrupts group tasks and refuses to go with his class to lunch or gym. At recess he plays with older children from other classes since his own classmates won't play with him. Although he seems to like his teacher and has above average potential, he seldom completes his work in a satisfactory manner.
20.	7	6	5	4	3	2	1	20.	Dan is a six year old who is extremely immature in all areas. He is not able to do any of the tasks that are expected of a kindergartner. His speech is primarily limited to one or two word utterances. He has a negative approach to school.
21.	7	6	5	4	3	2	1	21.	Paula is a soft spoken nine year old. She has trouble understanding even simple directions and often chooses to ignore them. She usually cannot do assigned work and reacts by crying or distracting other children.
22.	7	6	5	4	3	2	1	22.	Noel is a second grader who was retained in first grade. His performance is low in all subjects, but he appears fairly capable. He is lethargic, passive, and non-reactive, seeming to lack emotional responsiveness. He still checks each letter when copying a word and often confuses letters and whole words.
23.	7	6	5	4	3	2	1	23.	Bob is a third grader who wants friends, but his classmates continually make him a scapegoat. Although he is apparently bright, he is very forgetful and seems unaware of what is expected by his teacher.
24.	7	6	5	4	3	2	1	24.	Vance, age seven, is a good student in all areas except mathematics which is a constant frustration to him; he is unable to deal successfully with the most basic arithmetic concepts.
25.	7	6	5	4	3	2	1	25.	Bill is a very friendly ten year old who has recently learned to write his name. His speech skills are on a very immature level. He has mastered a few simple self-help skills.
26.	7	6	5	4	3	2	1	26.	Mel continually disrupts his fifth grade class. He seems to be angry much of the time and often bullies other children. Although he is of average potential, he doesn't have much interest in his studies.
27.	7	6	5	4	3	2	1	27.	Christopher is a very articulate second grader with many interests. He works very slowly, particularly in reading. He is weak in phonetic analysis, can't seem to retain reading skills, and any academic growth on his part depends on a great deal of drill.
28.	7	6	5	4	3	2	1	28.	Don, age ten, is only slightly slower than his average classmates, but he is clumsy and other students have nicknamed him "Don the dunce".
29.	7	6	5	4	3	2	1	29.	Jimmy Lee is an eight year old whose academic performance is well below what is expected for his age. He has difficulty feeding himself, he is not completely toilet trained, and he has very poor motor coordination.
30.	7	6	5	4	3	2	1	30.	Fred is a ten year old fourth grader who was retained in first grade. His attention span is short and many of his interests are immature. His motivation for classroom work is very low, but improves markedly in a one-to-one relationship. He has difficulty with reading, spelling, and arithmetic concepts. His oral performance indicates that he is far more able than his written work would indicate.

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Appendix X

MAINSTREAMING
FIRST YEAR TEACHER SURVEY
FOR
VCU GRADUATES

Directions: Over the past few semesters attention has been given to provide VCU graduates with those skills and knowledge necessary to provide instruction to handicapped students placed in regular classrooms. Your reactions to your first year experience are appreciated.

A. General Information

(1) What certification program did you complete? (Check one)

_____Elementary _____Secondary

(2) Are you aware of the implications of P.L. 94-142 for the education of handicapped children?
____Yes ____No

(3) Do you feel a need for a more detailed understanding of how regular classroom teachers may be affected by the law?
____Yes ____No

B. The following questions relate to your <u>total teacher preparation</u>:

(1) How adequately prepared do you feel you are to work with handicapped children placed in your classroom? (Check one)

____Well prepared ____Adequately prepared ____Poorly prepared

____Not prepared

(2) The following are areas of preparation with implications for teaching handicapped children in regular classrooms. Please rate the adequacy of your training in such areas. (Circle the appropriate response).

Excellent - I feel really good about my preparation in this area.
Good - I'm ready for my first full time teaching job, but I will need more preparation in this area on the job.
Poor - I need more preparation in this area.
None - I never received any preparation in this area.

E G P N Understanding the nature of and limitations of each handicapping condition.

E G P N Understanding diagnostic procedures and tests for identifying these children.

E G P N Behavior management techniques.

E G P N Helping normal children to understand and accept children with handicaps.

-over-

E G P N Selection of curriculum content, methods, and materials.

E G P N Communication with special education and support personnel.

E G P N Communication with parents of handicapped children.

(3) There may have been several opportunities over the course of your teacher preparation program to become familiar with the implications for teaching handicapped children in regular classrooms. If you have participated in any of the following, please check those items that apply.

___Reading assignment related to education of handicapped students.
___Design or adaptation of instructional materials for handicapped student.
___Behavior management techniques appropriate for handicapped students.
___Case study of a handicapped student.
___Design of an IEP.
___Design or adapt a lesson plan for handicapped students.
___Another specific assignment related to the education of handicapped students in regular classrooms.
___Viewed movie on multimedia package about teaching handicapped children in regular classrooms.

C. Are you presently teaching? Grade level? If not, please leave remainder blank.

The following questions relate to your present teaching experience.

(1) Are there handicapped children being served in your classroom?
____ Yes ____ No

(2) Are there other handicapped children in your school that you come in contact with routinely?
____ Yes ____ No

(3) Are there any gifted children in your classes?
____ Yes ____ No

(4) How many handicapped students do you have? _____
How many of each of the following handicapping conditions do your students have?

___Educable Mentally Retarded
___Learning Disabled
___Visually Impaired
___Hearing Impaired
___Emotionally Disturbed
___Speech Impaired
___Orthopedically Handicapped
___Physically Handicapped

(5) During this year, have you participated in writing an IEP for one of your students?
___Yes ___No

(6) Have you participated in any in-service program on mainstreaming?
___Yes ___No

(7) Who have you talked with regarding mainstreaming educational programs for handicapped students?

___Another teacher
___Principal/Supervisor
___Resource room teacher
___Special Education Teacher
___No one
___Other (Specify)

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VARIABLE	LEVEL	N	MEAN	STANDARD DEVIATION	SUM	MINIMUM VALUE	MAXIMUM VALUE	SUM OF WEIGHTS
				ID=10				
A1	[illegible]	10	44.10000000	3.93162814	441.00000000	38.00000000	51.00000000	10.00000000
A2	[illegible]	10	35.70000000	7.05612421	357.00000000	20.00000000	47.00000000	10.00000000
A3	[illegible]	10	12.70000000	2.66974719	127.00000000	9.00000000	17.00000000	10.00000000
A4	[illegible]	10	33.80000000	3.82210414	338.00000000	28.00000000	38.00000000	10.00000000
A5	[illegible]	10	30.20000000	5.11010387	302.00000000	25.00000000	41.00000000	10.00000000
A6	[illegible]	10	42.40000000	4.06361220	424.00000000	36.00000000	51.00000000	10.00000000
A7	[illegible]	10	122.50000000	10.57512425	1225.00000000	110.00000000	138.00000000	10.00000000
A8	[illegible]	10	3.97000000	0.52925564	39.70000000	2.40000000	4.80000000	10.00000000
A9	[illegible]	10	4.44000000	0.99729400	44.40000000	2.70000000	5.40000000	10.00000000
A10	[illegible]	10	2.68000000	1.34670387	26.80000000	1.00000000	4.40000000	10.00000000
A11	[illegible]	10	3.12000000	1.33277491	31.20000000	1.30000000	5.10000000	10.00000000
A12	[illegible]	10	3.74000000	0.93179543	37.40000000	2.20000000	5.20000000	10.00000000
A13	LEARNING STABLED KNOWLEDGE	10	3.51010000	1.13083057	1.70000000	5.40000000	0.557	10.00000000
A14	TOTAL KNOWLEDGE	10	6.26000000	1.25720143	4.60000000	8.20000000	3.32756	10.00000000
				ID=12				
A1	[illegible]	53	44.71698113	4.93565271	34.00000000	54.00000000	2.477	53.00000000
A2	[illegible]	53	70.41509434	9.37967107	50.00000000	98.00000000	1.23	53.00000000
A3	[illegible]	53	14.13207925	3.77265772	8.00000000	25.00000000	0.51	53.00000000
A4	[illegible]	53	33.35849057	6.03350347	22.00000000	46.00000000	0.79	53.00000000
A5	[illegible]	53	20.52230183	6.94374033	35.00000000	51.00000000	0.9	53.00000000
A6	[illegible]	53	45.43396226	6.32155759	26.00000000	65.00000000	0.	53.00000000
A7	[illegible]	53	129.32075472	15.67134343	98.00000000	160.00000000	2.1	53.00000000
A8	[illegible]	53	3.14150943	0.91912039	1.40000000	5.30000000	0.12	53.00000000
A9	[illegible]	53	5.04528302	1.16083252	2.70000000	8.50000000	0.17	53.00000000
A10	[illegible]	53	2.72168679	1.32955942	0.50000000	7.00000000	0.14	53.00000000
A11	[illegible]	53	3.91509434	1.24311409	1.60000000	7.20000000	0.17	53.00000000
A12	[illegible]	53	3.96603774	0.85681713	2.50000000	5.70000000	0.11	53.00000000
A13	[illegible]	53	3.32622642	1.23196994	1.50000000	6.70000000	0.17	53.00000000
A14	[illegible]	53	6.71320755	1.33550709	4.00000000	11.33000000	0.12	53.00000000

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1982

VARIABLE	LABEL	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM
---------- ID=13 ----------								
A1	MILD ATTITUDE	26	42.07692308	5.22243680	33.00000000	52.0000000	1.02420412	1094.00000
A2	MODERATE ATTITUDE	26	69.92307692	10.20557717	52.00000000	94.0000000	2.00147374	1818.00000
A3	SEVERE ATTITUDE	26	14.96153846	5.92945710	8.00000000	32.0000000	1.16256221	389.00000
A4	MENTALLY RETARDED ATTITUDE	26	32.69230769	7.34176571	23.00000000	48.0000000	1.43993691	850.00000
A5	EMOTIONALLY DISTURBED ATTITUDE	26	49.00000000	5.83557559	37.00000000	61.0000000	1.15425534	1274.00000
A6	LEARNING DISABLED ATTITUDE	26	45.26923077	6.12899791	34.00000000	59.0000000	1.20199536	1177.00000
A7	TOTAL ATTITUDE	26	126.96153846	15.20652694	96.00000000	165.0000000	2.98224529	3301.00000
A8	MILD KNOWLEDGE	26	3.70000000	1.33476590	1.60000000	6.6000000	0.26176913	96.20000
A9	MODERATE KNOWLEDGE	26	5.01153846	1.63738325	2.10000000	8.6000000	0.32121535	130.30000
A10	SEVERE KNOWLEDGE	26	3.33461538	2.07073751	1.00000000	9.9000000	0.40610504	86.70000
A11	MENTALLY RETARDED KNOWLEDGE	26	4.21538462	1.98125058	1.40000000	9.9000000	0.38855521	109.60000
A12	EMOTIONALLY DISTURBED KNOWLEDGE	26	4.26538462	1.41079901	2.20000000	7.4000000	0.27668043	110.90000
A13	LEARNING DISABLED KNOWLEDGE	26	3.76923077	1.55660380	1.70000000	7.7000000	0.30527512	98.00000
A14	TOTAL KNOWLEDGE	26	7.24615385	2.55581389	4.20000000	14.1000000	0.50123534	188.40000
---------- ID=21 ----------								
A1	MILD ATTITUDE	17	41.70588235	5.76373041	30.00000000	50.0000000	1.39779099	709.00000
A2	MODERATE ATTITUDE	17	65.76470588	6.95098395	52.00000000	74.0000000	1.68586121	1118.00000
A3	SEVERE ATTITUDE	17	12.47058824	3.24263872	8.00000000	18.0000000	0.78665541	212.00000
A4	MENTALLY RETARDED ATTITUDE	17	29.88235294	4.51223326	20.00000000	36.0000000	1.09437653	508.00000
A5	EMOTIONALLY DISTURBED ATTITUDE	17	48.41176471	8.11679450	32.00000000	64.0000000	1.96851183	823.00000
A6	LEARNING DISABLED ATTITUDE	17	41.64705882	4.53177335	33.00000000	49.0000000	1.11124525	708.00000
A7	TOTAL ATTITUDE	17	119.94117647	12.78412389	91.00000000	142.0000000	3.10060546	2039.00000
A8	MILD KNOWLEDGE	17	3.92941176	1.46149073	1.60000000	7.4000000	0.35446765	66.80000
A9	MODERATE KNOWLEDGE	17	5.06470588	0.88029903	3.20000000	6.9000000	0.21350369	86.10000
A10	SEVERE KNOWLEDGE	17	2.43235294	1.25958093	1.10000000	5.5000000	0.30549325	42.40000
A11	MENTALLY RETARDED KNOWLEDGE	17	3.63529412	0.76316870	2.50000000	5.4000000	0.18509563	61.80000
A12	EMOTIONALLY DISTURBED KNOWLEDGE	17	4.45294118	1.40806501	1.40000000	7.0000000	0.34150593	75.70000
A13	LEARNING DISABLED KNOWLEDGE	17	3.90588235	1.03891204	2.30000000	6.2000000	0.25197314	66.40000
A14	TOTAL KNOWLEDGE	17	7.07647059	1.45324181	3.90000000	9.2000000	0.35246291	120.30000

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VARIABLE	LABEL	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM
ID=13								
A1	MILD ATTITUDE	26	42.07692308	5.22243680	33.00000000	52.00000000	1.02430413	1094.00000000
A2	MODERATE ATTITUDE	26	69.92307692	10.20557917	52.00000000	94.00000000	2.00147374	1818.00000000
A3	SEVERE ATTITUDE	26	14.96153846	5.92945710	8.00000000	32.00000000	1.16276221	389.00000000
A4	MENTALLY RETARDED ATTITUDE	26	32.69230769	7.34176671	23.00000000	48.00000000	1.43953491	850.00000000
A5	EMOTIONALLY DISTURBED ATTITUDE	26	49.00000000	5.88557559	37.00000000	61.00000000	1.15425634	1274.00000000
A6	LEARNING DISABLED ATTITUDE	26	45.26923077	6.12899791	34.00000000	59.00000000	1.20199533	1177.00000000
A7	TOTAL ATTITUDE	26	126.96153846	15.20652694	96.00000000	165.00000000	2.98224529	3301.00000000
A8	MILD KNOWLEDGE	26	3.70000000	1.33476590	1.60000000	6.60000000	0.26176913	96.20000000
A9	MODERATE KNOWLEDGE	26	5.01153346	1.63738325	2.10000000	8.60000000	0.32121533	130.30000000
A10	SEVERE KNOWLEDGE	26	3.33461538	2.07073751	1.00000000	9.90000000	0.40616504	86.70000000
A11	MENTALLY RETARDED KNOWLEDGE	26	4.21538462	1.98125053	1.40000000	9.90000000	0.38855521	109.60000000
A12	EMOTIONALLY DISTURBED KNOWLEDGE	26	4.26538462	1.41079901	2.20000000	7.40000000	0.27668043	110.90000000
A13	LEARNING DISABLED KNOWLEDGE	26	3.76923077	1.55660360	1.70000000	7.70000000	0.30527518	98.00000000
A14	TOTAL KNOWLEDGE	26	7.24615385	2.55531389	4.20000000	14.10000000	0.50107524	188.40000000
ID=14								
A1	MILD ATTITUDE	23	44.30434783	4.52703779	34.00000000	51.00000000	0.94395263	1019.00000000
A2	MODERATE ATTITUDE	23	63.08695652	6.02202307	49.00000000	76.00000000	1.25567966	1451.00000000
A3	SEVERE ATTITUDE	23	11.13043478	2.41781922	7.00000000	16.00000000	0.50415015	256.00000000
A4	MENTALLY RETARDED ATTITUDE	23	28.73913043	5.31051608	19.00000000	37.00000000	1.10751915	661.00000000
A5	EMOTIONALLY DISTURBED ATTITUDE	23	48.00000000	5.44392906	36.00000000	58.00000000	1.13513763	1104.00000000
A6	LEARNING DISABLED ATTITUDE	23	41.78260870	3.57969681	35.00000000	50.00000000	0.74641335	961.00000000
A7	TOTAL ATTITUDE	23	118.52173913	10.34790082	91.00000000	139.00000000	2.15758644	2726.00000000
A8	MILD KNOWLEDGE	23	3.69260870	1.09114293	1.90000000	6.30000000	0.22751903	84.90000000
A9	MODERATE KNOWLEDGE	23	4.43913043	1.01208117	2.00000000	6.30000000	0.21103351	102.10000000
A10	SEVERE KNOWLEDGE	23	1.81304348	0.81425055	1.00000000	4.60000000	0.16976293	41.70000000
A11	MENTALLY RETARDED KNOWLEDGE	23	3.06956522	1.03766993	1.50000000	5.40000000	0.21636914	70.60000000
A12	EMOTIONALLY DISTURBED KNOWLEDGE	23	3.87391304	1.31190957	1.50000000	6.80000000	0.27355205	89.10000000
A13	LEARNING DISABLED KNOWLEDGE	23	3.31739130	0.92178294	2.00000000	5.20000000	0.19220305	76.30000000
A14	TOTAL KNOWLEDGE	23	6.13913043	1.39633909	3.80000000	9.20000000	0.29115693	141.20000000

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